

NOVEMBER, 1960



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VKEWV: Sundays at 1000 hours EST, on 7146 Mc. and 3672 Mc. Intrastate hook-ups taken on 7115 Mc.

EDITORIAL

*

ORGANISATION

A RECENT thought-provoking editorial by Austin Forsyth, G6FO, is outstanding for its clear headed approach to a problem which is giving much concern to those concerned with the future of Amateur Radio activity.

Trends at the I.T.U. Conference at Geneva and ideological clashes at U.N.O. emphasise the realistic nature of G6FO's proposal.

We therefore feel that the relevant parts of his editorial merit reproduction hereunder.

"Amateur Radio activity is on a world-wide scale and at the present time there can hardly be less than 200,000 A.T. stations on the air—with perhaps another 100,000 or so in various stages of suspended animation, retaining their interest and keeping in touch through the literature, itself an important sector of the field of radio publishing.

"In spite of the pressure of this activity and the global nature of our branch of the art of radio communication, the organisation of Amateur Radio, looked at internationally, is loose and indecisive, and therefore weak and ineffective . . ." (A situation which will remain as long as Russia and the iron curtain countries generally stand aloof.)

"The need is, therefore, for a truly representative international body, with new aims and objectives, which will include as many as possible of the nations of the world irrespective of their political (or ideological) affiliations."

The W.I.A., realising that the time had come for a more virile organisation to represent and lead the Radio Amateurs of the world, also appreciated the fact that heavy demands would be made on the financial resources of such an organisation, if it was to be really effective.

Our representative to I.T.U., the late John Moyle, was therefore instructed to take the opportunity afforded by an informal meeting of representatives of member societies of the I.A.R.U. present in Geneva, to propose the idea of an expanded I.A.R.U. organisation financed by all member societies.

We are therefore well able to appreciate the advantages of the solution proposed by G6FO—

"A solution might be found to lie in making Amateur Radio, in the international context, one of the branch activities of U.N.E.S.C.O.—the United Nations Educational, Scientific and Cultural Organisation. The advantages are manifold, and obvious. Operating under the charter of the United Nations, with its headquarters in Paris, U.N.E.S.C.O. is represented directly or indirectly in all the world's capitals, and is an international body of considerable authority. It disposes of funds totalling nearly £10m. annually, and one of its objects under its own charter is to promote collaboration among the nations by education, science and culture—and who could say that Amateur Radio is not at once educational, scientific and cultural, as well as being, by its very nature, almost forced to the ideal of international collaboration.

"To be clearly identified with U.N.E.S.C.O. would strengthen immeasurably the whole fabric of Amateur Radio, without in any way affecting the rights of individuals or the freedom of action of national groups within their own parishes.

"The only question is—Would U.N.E.S.C.O. be prepared to accept the commitment?"

—FEDERAL EXECUTIVE.

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Audio Limiters, Clippers, and the use of Silicon Diodes as Compressors

L. H. VALE,* VK5NO

In order to fully modulate transmitters with speech it has been found advisable to use limiters. Because of the nature of speech it is possible to clip off the highest peaks without affecting intelligibility and this allows the average speech power to be increased rather considerably. If the limiting circuit is set so that it is not possible to overmodulate the carrier, i.e. the limiter functions at, say, 90% modulation, we can also be sure that no overmodulation exists, and it will not be necessary to continually monitor the modulation percentage.

The disadvantages of using a limiter are as follows:-

- (a) Speech quality suffers—it becomes "unnatural" but not unintelligible, due to the restriction on dynamic range.
- (b) Because of the increased gain being used at low levels any audible background noise is much more apparent during speech pauses. This background noise drops down to its normal relation to the voice signals when limiting, but this constant fluctuation of the background also adds to the unnaturalness of the transmission.
- (c) Rather severe limitations are placed on the frequency response of the modulation system; this will be discussed further below.

Limiting can be done anywhere in the system between microphone and modulated stage—in fact ∞ the modulated stage itself automatically clips the negative peaks at full modulation but so sharply and drastically that the harmonics generated produce sidebands that spread over a wide frequency range. This, of course, is the "splatter" that we must avoid at all costs.

It is not possible to limit, or in any other way amplitudewise distort an audio signal without affecting its harmonic content, and if we are to achieve a worthwhile increase in overall audio level, the harmonics added to the speech will be powerful and will occupy a very wide frequency range; if we modulate the transmitter with this limited (or distorted) signal directly then we should produce rather more splatter than if we merely overmodulated the Class C stage; it, at least, only limits the negative peaks.

It is necessary then, to filter out the harmonics generated by the limiter before the audio signal is used to modulate the carrier. This is normally done by using a filter that attenuates all frequencies above three thousand cycles, and if this filter is placed between the

modulator and Class C stage it will also attenuate the harmonics produced in the modulator itself. Clipping or compressing always wastes some of the audio power so this is a major argument in favour of limiting early in the audio system where the powers are so much less. This is known as low level limiting.

However, there are another two factors which tend to make it desirable to limit the peaks as late as possible in the audio system.

Firstly, of course, if we limit the audio early in the modulation system, any change of audio gain after the limiter will correspondingly change the modulation percentage. As the gain of an audio system changes with variations in supply voltages, then some method of stabilising the gain after the limiter is desirable. The easiest method is to employ negative feedback around as much of the amplifier as possible; this need only include the stages prior to the modulator itself, because voltage supplies to the modulator and Class C stage will vary together anyway. If the modulator is Class B or AB2, then heavy negative feedback on the sub-modulator is desirable in any case, to reduce the source impedance looking into the modulator grids.

Secondly, Fig. 1(a) shows a sine wave and Fig. 1(b) shows the same signal clipped to allow a 5 db. increase in average level. If the clipping were

extreme cases as shown in Fig. 1(d). Lines have been drawn to show the comparison between amplitudes of the unlimited and limited signal and it will be seen that if the effect shown in this diagram takes place (as it must do to some extent, unless we use clipping after the modulation transformer and/or choke, or unless we are using an audio system direct coupled throughout), then limiting will not necessarily keep the modulation percentage constant at all frequencies.

The slope at the top of the cycle in Fig. 1(c) is inversely proportional to the ratio of the low frequency cut-off frequency after the limiter to the frequency of the signal being limited. It is a function also of the amount of limiting—the less drastic the limiting, the smaller the width of the flat top, and therefore the smaller the amount of slope. It will also be seen that if

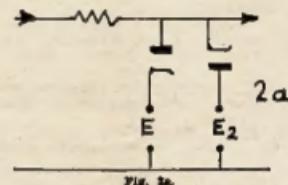


Fig. 2a.

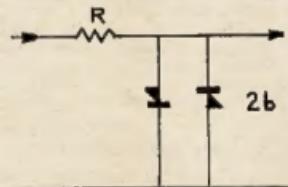


Fig. 2b.

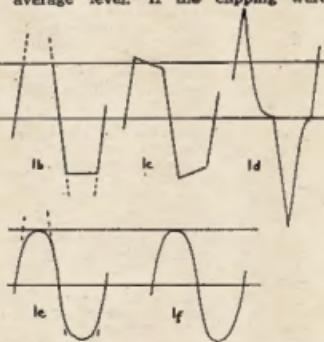


Fig. 1a-1f.

done between the modulation transformer and the Class C stage and there were no other components between the limiter and Class C stage, then Fig. 1(b) would represent the wave form of the modulation. However, if there are any circuits between the clipper and the audio output which tend to reduce the low frequency response—such as coupling condensers, transformers, etc.—then the wave form of the amplifier output tends to become as in Fig. 1(c) and in

the limiting is less sudden than in Fig. 1(b), making a corresponding waveform for 6 db. clipping something like Fig. 1(e), the modulator that produced the output 1(c) will now give an output more like 1(f). The harmonic reducing filter will also tend to round off the corners of the waveform a little, and further reduce the peaks, but as this effect is more troublesome at lower audio frequencies and the filter is effective only at higher frequencies, its effect will not be very great.

If we clip so as to allow 95% modulation rather than 100% on higher audio frequencies, then the cut-off frequency of the modulator system after the limiter must not be greater than three-tenths of the signal frequency for 6 db. clipping, or one-quarter of the signal frequency for clipping approaching 100%. These figures apply only in the impractical case of perfect flat top clipping and no subsequent low pass

filter; but they do show that the low frequency cut-off after the limiter determines the allowable low frequency response previous to it.

Unfortunately most transmitters use high level modulation with modulation transformers, and as the size and cost of these transformers is proportional to their low frequency response, this tends to limit the cut-off frequency after the limiter to around about 200 to 300 cycles in normal cases. Using our previous figures, this indicates that our input audio must cut at, say, 1,000 cycles, which would result in very thin modulation, therefore it becomes apparent that compression resulting in the waveform shown in Fig. 1(e) is more useful than clipping, because it tends to remove this severe limitation on input amplifier low frequency response.

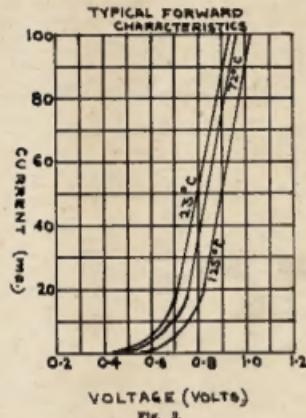


Fig. 2.

In any case, however, it should be taken as a first principle of design that low frequency reduction should be done prior to the limiter and high frequency reduction afterwards.

A compressor generates fewer harmonics than a flat top limiter and thus needs only a simple high-cut filter to avoid splatter.

The foregoing can be summarised as follows:-

1. High level limiting versus low level limiting:

- (a) High level limiting avoids the problem of "droop" due to subsequent inadequate low frequency response.
- (b) Because of the size of components in both limiter and harmonic filter, it is more expensive and less flexible than low level clipping.
- (c) Means must be used to stabilise the audio gain between limiter and modulator if low level limiting is used.

2. Clipping (flat top) versus compression:

- (a) Clipping is, in itself, more efficient in that more audio output power for a given input is generated; but this is of doubtful practical value.

- (b) Compression reduces the effect of "droop" and therefore allows a greater low frequency response before the compressor.
- (c) Compression generates less higher frequency harmonics than limiting, allowing simpler harmonic filters.

- (d) It will be shown that compression is simpler to achieve.

From the above, it will be seen that, in the writer's opinion, the best approach to limiting, for Amateur use, is low level compression, because it offers both efficiency and simplicity.

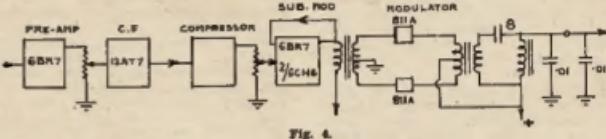


Fig. 4.

The main difference between a clipper and a compressor is shown in Fig. 2. Fig. 2(a) shows a simple clipper circuit. Equal voltages E and E2 prevent the diodes conducting until the audio peaks reach the same value, when the diodes conduct and effectively short the signal out, resulting in an output waveform similar to Fig. 1(b).

Fig. 2(b) shows a compressor circuit. At first glance it would seem that the back-to-back rectifiers would short the audio out completely, one rectifier shorting the positive peaks, the other the negative peaks; but a characteristic of most semi-conductor diodes is that they still have quite a high resistance in the forward direction until there is considerable voltage drop across them. A curve of this characteristic in a silicon diode, a Ferranti ZS type, is shown in Fig. 3. The curve is typical of all silicon diodes. The value of R determines the voltage at which compression occurs, the lower the resistance, the higher the output voltage peaks. A value of 3K is used here and the output voltage is about one volt, peak to peak.

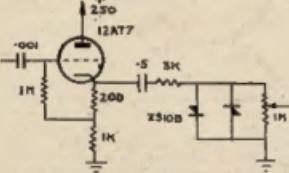


Fig. 3.

A modulation system which has been used at VK5NO for more than a year is shown in block form in Fig. 4, and the limiter circuit is shown in detail in Fig. 5.

Referring to Fig. 4, the method of setting the system up for full modulation is as follows: Looking at the modulation in an oscilloscope, and with VR2 turned on so that the audio wave form can be seen, turn VR1 up until compression becomes apparent, i.e. until an increase in input voltage does not cause a further increase in modulation. After that, adjust VR2 until modulation is just under 100%.

In Fig. 4, the harmonic filter consists of the choke L, which is low tension super filter choke, and the two 0.01 μ F. condensers. One is mounted with the choke, and the other is the sum of the r.f. by-pass condensers in the modulated stage.

Since installing the compressor, there have been no complaints of splatter, even though we live in a Hamwise thickly populated area (although to be fair, both VK5NO and myself consider ourselves c.w. types and the telephony is not often used). Listening from some distance away the signal sounds clean,

but very thin, and probably we've taken the low frequency cutting in the pre-amplifier further than we need to have done.

We have had several reports that the compression is obvious, and that the background is high, giving the unnatural effect referred to earlier in the article.

However, I consider that compression is the most effective and cleanest way of getting as much modulation as possible on to a carrier. . . .

R.S.G.B. 21/28 Mc. TELEPHONY CONTEST

The rules are the same as in previous years, but the attention of overseas contestants is drawn to the additional bonus for working each additional ten G3 stations irrespective of band. The G3 series comprises the largest single group of U.K. stations.

The Contest will start at 0700 G.M.T. on Saturday, December 3, and end at 1900 G.M.T. on Sunday, December 4, 1966.

An exchange of RS reports followed by a three-figure serial number starting with 001 for the first contact and increasing by one for each successive contact (for example, 58001, 58002, etc.) must be made.

Scoring for overseas stations: Each completed contact with a British Isles station will score 5 points. In addition, a bonus of 50 points may be claimed for the first contact with each British Isles country-numeral prefix. A further 50 bonus points will be scored for each additional ten G3 stations worked irrespective of band.

In conjunction with this Contest, a Receiving Contest is being held, and is open to short wave listeners throughout the world.

Overseas entrants may only log British Isles stations in contact with overseas stations for points. Each complete log entry relating to a British Isles station heard will score 5 points. In addition, a bonus of 20 points may be claimed for the first station heard in each British Isles country-numeral prefix, i.e. G2, G3, GM4, etc., and further bonus of 50 points will be scored for each additional ten G3 stations logged irrespective of band.

Slow-Scanning T.V. with Electrostatic C.R. Tubes

M. L. OLIVA,* VK3ZKC/T

IN Amateur Television equipment, expensive and comparatively hard-to-obtain camera tubes often give way to more modest picture systems. In view of this fact, a flying spot scanner, together with a photo-multiplier cell, is employed to scan transparencies and perhaps still-life scenes. These scanners present certain problems with normal (i.e. CCIR standard) scanning speeds, but with reduced speeds, such as those encountered in slow-scan experiments, the situation becomes much more difficult when magnetic systems are used.

Flying-spot scanners used by Amateurs usually make use of P7 phosphor tubes since the initial light output from the blue phosphor, ignoring the long-persistence yellow afterglow, is a good spectral match for a photomultiplier such as the 931A which, incidentally, is insensitive to the yellow afterglow phosphor. The electro-magnetically deflected cathode ray tubes themselves were manufactured in large quantities for radar use during the war, and for high-speed scanning purposes normal 70 degree commercial deflection components are satisfactory.

With slow-scanning methods, however, these magnetically-deflected systems are no longer suitable because the standard yokes, transformers, coils and perhaps line and frame output tubes were designed for 30 c.p.s. vertical and 15,625 c.p.s. horizontal deflection rates only, against something like five seconds per cycle vertical and 3,000 to 8,000 c.p.s. horizontal deflection frequencies for slow-scanning.

The transformers, unless specially wound for the purpose, can be replaced by cathode follower stages feeding into the yoke directly, but in any case a considerable amount of power will still be lost in driving the inefficient yoke. In addition, a separate e.h.t. system must be used.

Instead of battling with magnetic c.r.t.'s, it is far easier and more economical to use electrostatically deflected tubes. These have no scanning speed restrictions as far as slow-scan work is concerned, and the deflection amplifiers themselves are no more complex than for normal electrostatic c.r.t.'s. The effective electron beam flyback time can also be made much shorter than for electromagnetic systems for a given sweep frequency. Depending on the sweep circuits used, the flyback time and rise time ratio of the sawtooth voltage may be 1:50 or less.

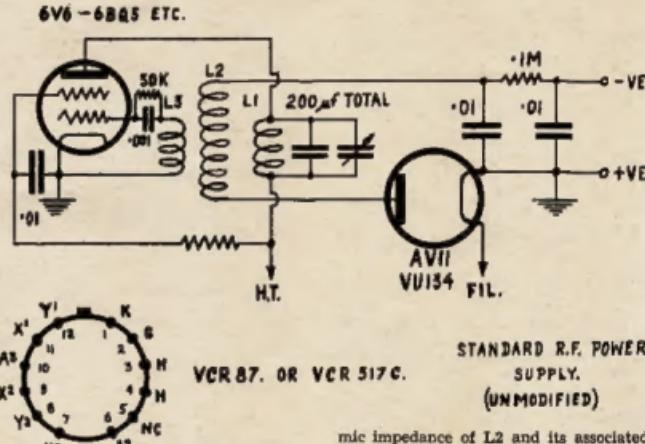
More important, however, are the tube phosphors themselves. Cathode ray tubes such as the 5BP1, 5BP4, 5LP1, 5CP1, VCR97, VCR139A, VCR138A, etc., are almost useless for flying-spot scanning because of the relatively long P1 or P4 phosphor persistence (about 300 microseconds up to 30 millisecond, depending on tube used), the effect of long phosphor persistence being a partially integrated electrical output from the photo-multiplier.

Apart from tubes like the 5BP5, 5BP11, SJP5 and 12FP7, the only suitable (and also inexpensive) tube which appears to be in reasonable supply is the English VCR87. This radar c.r.t. is considered as hopeless even for experimental television receivers, but its two-step screen can, as with P7 tubes, be used to advantage at the slow-scan transmitter and receiver. The first phosphor layer (electron layer) has a short-persistence deep blue emission, probably in the 3,800 Å.u. region, against 4,300 Å.u. for the P7 zinc sulphide silver-activated electron layer emission. The normal long-persistence yellow phosphor layer (glass layer) useful for radar is also present, so that on the whole this tube is not unlike normal P7 radar tubes. At the transmitter the blue phosphor is suitable for scanning purposes, provided that the photomulti-

3 k.v. r.f. power supply using a power tube such as the 6V6 or 6BQ5.

Keep in mind, however, that the greater the final anode voltage of the c.r.t., the higher the voltage rating of the deflection plate coupling capacitors, and when considering that the value of these capacitors must increase with a decrease in scanning speed for a sufficiently low capacitive reactance at the lowest scanning frequency, it is obvious that a compromise must be made somewhere if size and cost are the deciding factors.

Although this coil is intended for 3 k.v. use, it is possible to obtain up to 4 k.v. with certain modifications. The circuit of a typical r.f. supply is shown here. With this arrangement, the voltage output is a function of the oscillator voltage developed across ZL1, and the ratio ZL2/ZL1, where ZL2 is the dyna-



pier used is sensitive to the blue light. The yellow phosphor, which is ignored at the transmitting end, serves its purpose at the receiver by setting up an image which persists during vertical slow-speed scanning, this time ignoring the initial blue phosphor "flash" nearest to the electron gun.

One disadvantage of the VCR87 is that it needs between 3,500 and 4,000 volts for a high intensity raster, and naturally enough, the higher the blue light output, the greater the photomultiplier output. If the e.h.t. is too hard to obtain satisfactorily, the gain of the video amplifiers could, of course, be increased, with perhaps an addition reduction in raster size. It should also be kept in mind, however, that the higher the final anode voltage, the higher the deflection voltages for a given raster size.

At least one local (i.e. VK3) manufacturer has a coil intended for a small

mic impedance of L2 and its associated capacitance shunted by half the d.c. load resistance, and ZL1 is the dynamic impedance of L1 shunted by the reflected plate load. Since it is assumed that no electrical changes can be made to the coil, it is therefore necessary to increase the voltage developed across ZL1, by using a tube (or tubes) having a higher rating than the original 6V6 or similar 4 watt tube, and to operate them with a higher plate voltage. Taking into account the maximum permissible plate current flow through the coil for cool operation, the maximum plate current has been set at 70 mA. A large number of power tubes having a nominal plate impedance of 3K to 12K ohms (audio) should be suitable, and at this QTH a 6N7 with the plates of both triode sections in parallel is used. The coil must be lacquered or dipped especially between the pies, to avoid corona discharges or sparking between the leads and windings. The whole r.f. supply unit should be effectively shielded.

(Continued on Page 8)

Try Remote Tuning for Your 50 Mc. V.F.O.*

B. CLEWORTH,† VK5ZBZ

THE stability of any v.f.o. will only be as good as the frequency determining coil of the oscillator and one or two external factors influencing its behaviour. Moreover, any stability faults which are present in a v.f.o. will be very exaggerated when the frequency is multiplied many times to drive a 50 Mc. final, although the v.f.o. might give acceptable results on some of the lower frequency bands.

Consequently, if the frequency determining components are "housed" in a semi-remote metal box, so that heat variations can be minimised, then one of these "external factors" has been eliminated.

Incidentally, if there is any doubt as to the effect of heat variation, then I suggest the reader beat a v.f.o. against a suitable crystal carrier in his receiver and whilst gently breathing "hot air" onto the oscillator coil, observe the large and rapid change in beat note.

The dimensions of the remote control box should be such that the proximity

would be an acceptable substitute. Then two pillars made from $\frac{1}{4}$ " polystyrene are used to support the coil as shown.

The trimmer capacitor C1 and the tuning capacitor C2 should be good quality ceramic insulated double bearing types, C2 being a three-plate double spaced miniature. Silver mica capacitors are also used where indicated.

It is also important to mount the coil rigidly on the surface only of the box and connect to it via flexible leads to reduce the possibility of extraneous vibration reaching it.

Before leaving the remote control box, it is stressed that the dial drive must be mechanically efficient and have an appreciable reduction ratio, although the writer initially used a cord drive with good success.

The circuit of the v.f.o. follows standard practice except for possibly one or two points.

Two voltage regulator tubes were used because there were several on hand. One regulates screen voltage to

the oscillator and the other regulates plate volts. However, the screen is the important electrode and a VR tube is essential here, otherwise variations in h.t. voltage would most certainly result in frequency drift.

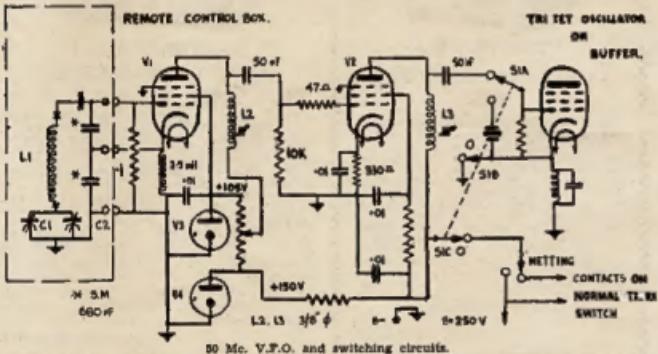
The oscillator is a Clapp followed by a single buffer stage from which output is transferred via a coupling condenser to the exciter stages of the transmitter. Alternatively, a low impedance winding and co-ax can be used. It will be noticed that the plate coils of the tubes are resonated with the output capacity of the tubes to obtain broadly resonant circuits. Both these coils are resonant at about 8.35 Mc. and the oscillator coil in the remote tuning box at half this frequency.

The tubes specified have proved satisfactory. Originally two 6AC7s were used, but the 6AG7 buffer gives slightly better output. A ceramic socket for the oscillator tube is desirable.

In using the v.f.o. on the air it has been found necessary to provide switching circuits to cut the h.t. to the v.f.o. when operating from crystal, otherwise spurious "spots" often appear on either side of the fundamental, caused by the v.f.o. energy being capacitively coupled by stray means to the first tube in the transmitter. The v.f.o. and switching circuits are shown here-with.

Only one switch need be operated to change from v.f.o. to crystal and vice-versa, although once v.f.o. operation is "mastered" and the advantages realised, the switch will always be in the "v.f.o." position.

The cost of the v.f.o. is less than the price of a crystal, assuming the use of some "junk box" parts. This circuit in its "basic" form is used by at least two six-metre stations, although the one in use at VK5ZCR has no remote control and varies in detail, but by proper attention to the frequency determining coil a very high standard of stability is obtained. The note is also very good.



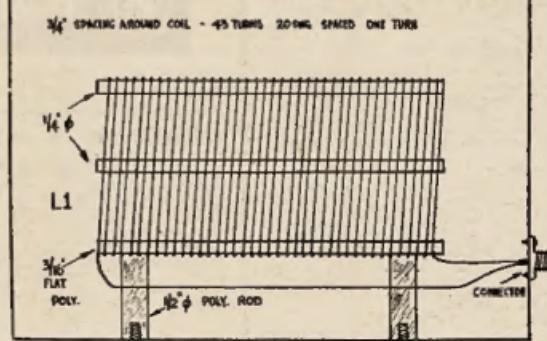
*Silvered mica condensers.

†See text.

V1—6AC7. V2—6AG7. V3—VR105. V4—VR150.

of the metal will not damp the Q of the coil. The minimum clearances are half the diameter of the coil either side of the coil and diameter spaced at the ends of the coil. The ideal box would probably be one made from cast aluminium with $\frac{1}{8}$ " wall thickness, if such facilities are available. Alternatively, if sheet metal (aluminium, copper or brass) is used, the gauge should be heavy so as to provide a completely rigid container.

In the v.f.o. described, the coil is air wound with 43 turns of approximately 20 gauge spaced one wire diameter. Four pieces of $\frac{1}{4}$ " polystyrene rod are cut to the length of the coil and glued to the coil or grooved to accept the turns of the coil to act as bracing supports for the turns. The diameter of the coil is $1\frac{1}{2}$ ". A large ceramic former



Elevation of Box. Flexible leads are used from coil to condenser and co-ax sockets. Twin co-ax or two lengths of single co-ax connects to remote box.

* Extracted from South Australian Division W.I.A. Journal.

† Flat 5, Transmere House, Kingsgrove, Transmere, S.A.

The Ross Hull Memorial V.H.F. Contest, 1960-61

THE Federal Contest Committee of the Wireless Institute of Australia invites all Australian and Overseas Amateurs and Short Wave listeners to participate in this annual contest which is held to perpetuate the memory of the late Ross Hull whose interest in v.h.f. did much to advance the art.

A handsome Perpetual Trophy is awarded annually for competition between members of the W.I.A. in Australia and its Territories, inscribed with the name and life work of the man whom it honours. The name of the winning member of the W.I.A. each year is also inscribed on the trophy. In addition, this member will receive a suitably inscribed, framed photograph of the trophy.

Objects: Amateurs in each Call Area (this includes those in Australian Mandated Territories and Antarctica) will endeavour to contact Amateurs in Australian call areas and overseas. (VK1 and VK2 will be considered to be one call area.)

Date of Contest: 17th December, 1960, to 15th January, 1961.

Duration: From 0001 hours E.A.S.T. 17th December, 1960, to 2359 hours E.A.S.T., 15th January, 1961.

RULES

1. There shall be four main sections to the Contest:

- (a) Transmitting, c.w., 50-54 Mc. and 56-60 Mc. bands.
- (b) Transmitting, phone, 50-54 Mc. and 56-60 Mc. bands.
- (c) Transmitting, phone, 144 Mc. band and higher bands.
- (d) Receiving, open, all bands from 50 Mc. and higher.

2. All Australian and Overseas Amateurs may enter for the Contest whether their stations are fixed, portable or mobile.

3. All Amateur v.h.f. bands may be used, but no cross-band operating is permitted, with the exception that the 50-54 Mc. and 56-60 Mc. bands will be considered to be the same band for contacts.

4. Amateurs may enter for any or all of the transmitting sections (a), (b), and (c) listed in Rule 1. Separate logs must be submitted for each section (a), (b), and (c), but all contacts must be consecutively numbered in the one number sequence to facilitate checking.

5. Only one contact per band per section is allowed each calendar day.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

EXAMPLE OF TRANSMITTING LOG

Date/ Time E.A.S.T.	Band	Emis- sion	Call Sign	RST/NR. Sent	RST/NR. Rev'd.	Call Area Bonus	Points Claimed.	Blank

7. Entrants must operate within the terms of their licences.

8. **Ciphers:** Before points may be claimed for a contact serial numbers must be exchanged and acknowledged. The serial number of 5 or 6 figures will be made up of the RS (telephony) or RST (c.w.) report plus three figures which may begin with any number between 001 and 100 for the first contact and which will increase in value by one for each successive contact, e.g. if the number chosen for the first contact is 053, then for the second contact the number will be 054, for the third 055 and so on. If any contestant reaches 999 he will start again with 001.

9. **Entries:** must be set out as shown in the example, using only one side of the paper. Entries must be post marked not later than one month after the close of the Contest (i.e. not later than Wednesday, 15th February, 1961) and addressed to the **Federal Contest Committee, W.I.A., Box 851J, G.P.O., Hobart, Tasmania.**

10. **Scoring** for Sections (a) and (b) will be based on Scoring Table A-B for 50 Mc., and for Section (c) will be based on Scoring Table C for 144 Mc. and higher.

11. **Logs:** All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

**SCORING TABLE C
(For 144 Mc. and Higher Bands)**

Band	Intrastate Contacts	Interstate Contacts
144 Mc.	1 point	2 points
288 Mc.	2 "	4 "
576 Mc.	4 "	8 "
Each higher freq. band }	10 "	20 "

SCORING TABLE A-B (for 50-54 and 56-60 Mc. bands)

From	VK1-VK2	VK3	VK4	VK5	VK6	VK7	VK8	VK9	ZL	Other Stations
	-	5	4	2	10	4	6	10	7	10
VK3	-	-	4	4	9	10	6	10	7	10
VK4	4	4	-	5	10	7	3	7	8	10
VK5	-	2	4	5	-	7	5	3	10	8
VK6	10	9	10	7	-	10	10	10	10	10
VK7	4	10	7	5	10	-	7	10	7	10
VK8	6	6	3	3	10	7	-	3	10	10
VK9	10	10	7	10	10	10	3	-	10	10
ZL	7	7	8	8	10	7	10	10	-	-
Other Stations	10	10	10	10	10	10	10	10	-	-

The score for the first contact with any particular call area on c.w. and for the first contact on phone will be that shown in the Table above. For each subsequent contact with the same call area the score will reduce by one point until the contact value reaches 1, when all further contacts will retain that value.

In addition a bonus of 20 points may be claimed for each new call area worked on c.w. and on each phone band.

EXAMPLE OF RECEIVING LOG

Date/ Time E.A.S.T.	Band	Call Sign Heard	RST/NR. Sent	Station Called	Call Area Bonus	Points Claimed.	Blank

NOTE.—The standard W.I.A. Log Sheet follows the above form.

NOTE.—The standard W.I.A. Log Sheet follows the above form.

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Ranges: 0-5, 25, 100, 200, 1,000 ohms AC.

0-10, 50, 250, 500, 1,000, 5,000 volts DC.

DC Current: 0-1 microamp; 0-5, 50, 500 mA.

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0-1 mA., 100 mA., 500 mA.

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FEEDBACK

Hear about the ardent DXer who thought 230VAC was a new country?

*

It is human nature to complain about things not being done, but when a responsible body says this will be done, then does nothing, it leaves itself open to adverse comment. Earlier this year every Amateur was promised a full report of the I.T.U. Conference, but this has never been issued. To my mind this report will now serve no useful purpose because the Ad Hoc Committee on Frequency Review is meeting and they will, or should I say are unlikely to be influenced by this report. It would be better to conserve this money for establishing a fund or create a memorial tribute to the late John Moyle. Publishing a report upon the past I.T.U. Conference is only providing history, not progress. You contributed to this Fund so it is your money, thus you should have a say in how the funds are now to be used. Do you want a copy of this report? If so, advise your Federal Councillor so that a majority rule can say if it is to be published. It is incorrect to say because this was agreed in the past, it must be done. Surely it is commonsense to revise ideas in the light of passing events. The action is in your hands, so discuss this matter at your general meeting and ensure your money is correctly used.

*

That funny man is again on the air. When asked what is 8N7, he replied thirteen. Well you asked for it.

*

What happens to the promised articles in "A.R."? Reading through past issues note that we were promised some details of an early v.h.f. meeting held in N.S.W. What's the matter, waiting for history to occur, or has the matter been forgotten? In addition, note that some articles suggest that they will be followed by further details, but these do not always appear. Why?

*

Congratulations to the Pub. Com. upon the October issue very good.

*

Emphatically deny that a Yagi is a Hindu Holy Man.

*

Was told that the t.v. man was not amused when an Amateur type told him the sync. was in the kitchen.

*

Have been seeking opinions whether H.F. makes pages pink.

*

Bet that shop is sorry they were so abrupt to the customer who asked for a crystal set. The layman still does know they are called transistors and that shop lost a nice sale of good gear.

*

Hope that they act upon Correspondence and abolish c.w. tests, nothing like complete freedom. C.W. is still the most used Amateur means of communication and has yet to be bettered for reliable working with simple gear.

E.C.

SLOW-SCANNING T.V. WITH ELECTROSTATIC C.R. TUBES

(Continued from Page 4)

ed because the 8 or so watts of 1 Mc. stray r.f. energy may creep over the back-fence. As an alternative to r.f. supplies, voltage doubling arrangements if you have the components, are equally suitable.

Another electrostatic tube, the American 3FP7, seems to be available only in VK2. This three-inch P7 phosphor tube is of the post-deflection acceleration type, and has the disadvantage of requiring 4,000 volts for post-acceleration. Under normal circumstances, it appears that the tube operates quite well even without this 4 k.v. potential, the post-acceleration electrode being connected directly to A3. With normal electrode voltages, the deflection sensitivity is 250 volts/inch (d.c.) for one set of plates, and 180 volts d.c./inch for the set closest to the electron gun. These voltages are approximately three times those required by the 5EP1 for the same deflection arc, giving some idea of the deflection voltage amplifiers required.

The VCR517C, which is by no means in plentiful supply, has similar phosphor characteristics to those of the VCR87, but this tube needs only 2-3 k.v. under normal conditions and can thus be used with the usual VCR97 tube networks.

Apart from the 3 inch and the two 6 inch tubes, there does not seem to be any others suitable for slow scanning, whilst still having long persistence afterglow-type screens for the receiving end. In this respect, the short persistence P5 and P11 tubes are only useful for the transmitter, a long persistence tube being necessary at the receiver in any case. One P7 tube can therefore be used both for scanning a transparency and displaying an image, with simple switching for the two functions.

Fortunately the 3FP7 has an almost flat face-plate, but the English VCR series have a relatively short radius of screen curvature. This necessitates the use of flexible transparency which can be spread across the glass surface, otherwise edge defocusing and parallax effects will result.

Little need be said concerning slow-scan circuits themselves, these being more or less the individual's preference, but assuming that the slow-scanned image is to modulate a narrow band transmitter (the narrow bandwidth [4-10 kilocycles] of slow scan systems being their main advantage), then there are sure to be some difficulties with integration and differentiation networks and the circuits with which they are used. Accordingly, the single-tube synch. separator, be it a double triode or not, may have to be replaced with two or three valve circuitry, where the synchronising pulses are separated, shaped and amplified, passed on to a control tube, and finally the oscillator themselves. In view of the overall narrow bandwidth of this system, this should not be a great disadvantage. The synchronising pulses, whether used for closed circuit or transmitting work, can be obtained from asymmetrical multi-vibrators in the usual way.

EARLY COPY DATE

All correspondents are reminded that with the approaching Xmas Holidays the copy date for the December and January issues will be strictly adhered to. Copy for the December issue must be at P.O. Box 36 by 8th November, any copy received after that date will be carried over to the January issue.

Copy for the January issue must be at P.O. Box 36 by 1st December, as the printers' Xmas shut-down requires an early issue of January "A.R."

Your co-operation in observing these dates will greatly assist all concerned. Regrettably we cannot accept copy received after the specified date, so please post in adequate time, remembering the additional heavy load the Post Office has at this period of the year.

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2043	90	340 315	135 TAP 125	6.3 C.T.—2.25	29	3 3	3½	2½x2½	2½x3	VLM 31
2044	125	340 325	135 TAP 125	6.3 C.T.—2.25 6.3—2.25	16	4 15	3½	2½x2½	3½x3½	VLM 34
2045	150	325 300	125 TAP 105	6.3 C.T.—	10	5 10	3½	2½x2½	2½x3½	VLM 34
2046	175	325 300	125 TAP 105	6.3 C.T.—	6	6 8	3½	3x2½	4x3½	VLM 34

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Queanbeyan, N.S.W.

OLD FAITHFUL

Let us look at the 807 linear amplifier. There are several ways in which you can use this old favorite or its brother, the 382, which has the same characteristics. You have the choice of operating it in Class AB2, as Class B, as a grounded grid stage, or in the ZL and GEMMA linear amplifier circuits.

Linear r.f. amplifiers do not have to be operated in push-pull designs like their audio counterparts. The reason being that the plate tank circuit supplies the missing half cycle by its fly-wheel action. This means that we can use a single tube or a pair in parallel.

As a Class AB2 amplifier, the 807 gives good output linearity, but suffers from a couple of disadvantages. The grid bias voltage must remain constant under all drive conditions and the screen voltage regulation must be good. This calls for voltage regulators, a "stir" bias supply and adds to the sources of trouble and expense. Fig. 1 shows an 807 used as an AB2 amplifier—very conventional.

The 807 is a pentode, so no bias is required in the grid circuit of an AB2 amplifier. The fact that grid current is flowing only over a portion of the cycle makes this necessary. The load presented to the Class A driver amplifier is variable without the swamping resistor. The swamping resistor presents a steady load to the driver and is usually about 5,000 ohms non-inductive and of about 2 watts rating.

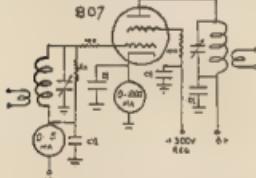


Fig. 1.—807 as a Class AB2 Amplifier.

There are two other ways in which the 807 can be used and these find an increasing number of users. First comes the "ZL linear" (Fig. 2) designed by Lester Enochshaw, ZL1AAK, and then the "GEMMA linear" again taking its name from its designer, David Marshall, GEMMA, who is to be heard on twenty regularly. The circuit for the ZL linear is also shown in Fig. 2. Note that the difference is in the method of obtaining clamped tube bias. In the ZL linear, bias is developed across the 13k grid resistor, while in the GEMMA amplifier, it is obtained by rectifying the r.f. drive with a diode and then developing bias across the 13k grid resistor. By having the grid of the r.f. amplifier and the grid of the clamped tube isolated from one another for d.c., in the GEMMA circuit, only a small amount of negative voltage is required to bias the r.f. amplifier to cut-off, if this is required.

In adjusting the circuit, I have found that by moving the slider, R1, until about 15 mA. of plate current is flowing with no drive gives good results. I am using a 6L6 as a clapper although several other tubes would be suitable, such as 6V6, 6V8, 6N8, 2A3 to mention a few. An EASO diode makes a good diode although a standard diode rated at least 100 volts peak would be most suitable.

I have shown an ordinary tank circuit in the diagrams, but there is nothing to stop you from using a pi output network in your rig as long as you design it properly. This goes for the tank circuit also.

MORE R.F. IN THE ANTENNA

None of us would use pure impedance matching in the 807, so the circuit has a 10,000 ohm plate-to-plate. We go to great expense and trouble to ensure that the output transformer meets our requirements. Not only

does correct impedance matching mean less distortion, it means maximum power transfer to the load and cooler tubes.

If we have 150 watts of d.c. input to our final amplifier and only get 100 because of heat dissipation, 50 watts is lost and amounts to the other 100 watts? It is heating our final tube, and with summer upon us, it is sheer waste! Even if our final amplifier tube has a plate dissipation of 50 watts, the tube is being run at 100% above its maximum rating. Does this shed any light on why that expensive amp did not last very long?

The answer to all this is so very simple. All that is required are a few simple calculations—hi, come back home, it is not that hard. All you need to know is the plate load impedance of your final amplifier tube and the rest is easy. The tube manual will tell you the plate load you get from the conditions for audio service. Divide the plate-to-plate figure by 2, if your amplifier is single-ended.

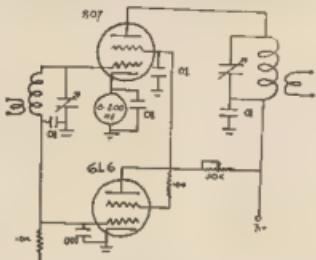


Fig. 2.—"ZL Linear" using an 807.

Let us consider that our final requires a plate load resistance (R_p) of 4,000 ohms. The formula states that

$$\text{Resistance (XL or XC) equals }$$

$$\frac{\text{Plate Load Resistance}}{\text{Loaded Circuit Q}}$$

so for any frequency, assuming a Q of 15, the resistance is 4,000 divided by 15, or 266 ohms.

Now to find the inductance of the plate tank coil for 14 Mc. We can consult the reactance chart in the Handbook or work it out from this formula:

$$L \text{ (in microhenries)} = \frac{XL}{6128 \times F}$$

where F is in megacycles.

The capacitor required can be found from the same chart or it can be derived from:

$$C \text{ (in } \mu\text{F)} = \frac{1}{0.28 \times F \times XC}$$

where F is in megacycles.

The coil works out at 3 microhenries and the capacitor at 0.000043 μF. or 43 pF.

His present a.s.b. tx is quite unusual as it employs transistors in the low level r.f. and audio stages. The 9 Mc. McCoy x1 filter helps in the generation of the s.s.b. and after the transmitter a 100W UHF power amplifier in 815 is a ZL linear circuit take care of the signal.

John has plans afoot to use transistors right up to a pair of S146 tubes in AB1 and should be using this new rig by now.

For receiving at VS1JV, an AR88 which has been completely re-built, does an adequate job, while a 200 mA. 100W speech coupled quad antenna takes the signal in the 14 Mc. band. By the way, if you haven't worked John at VS1JV, you may have talked to him when he was at Penang in Malaya signing GMIGR.

As the capacitance in practice is rather difficult to estimate due to strays, I find it simpler to get the inductance of the coil correct, then the capacitance looks after itself. A grid-dip meter and known capacitance will make this job simple.

However, too, that should you decide to use two tubes in parallel the plate load resistance is halved, thereby halving the inductive and capacitive reactance of the tank circuit

components. This has a significant bearing on their value—work out the sums and see for yourself.

The calculations for a pi network are a little different, but are just as simple and straightforward. The inductance is, for our calculations, divided into two parts but, in practice, is one coil. Fig. 4 shows a pi network. R_p is the plate load resistance of the network while R_o is the output impedance of the network or the transmission line to the antenna or coupler. This is usually 50 or 72 ohms. The reactances of L_1 and C_1 are calculated as in our previous tank circuit.

X_L equals R_p divided by Q , and as the inductive and capacitive reactances are equal at resonance, so X_C will be the same as X_L .

To calculate X_C use the formula:

$$X_C \text{ equals } - \frac{R_o}{R_p} \left(Q^2 + 1 \right) - R_p$$

To calculate X_L :

$$X_L \text{ equals } - \frac{R_o}{R_p} \times X_C$$

Therefore X_L equals X_C plus X_L .

Now that the capacitive and inductive reactances are known, reference to the reactance chart will give the required values for the frequency involved.

IN HOSPITAL

Harry VK2AJZ has been off the air recently due to a spell in hospital. He should be up and about again very shortly. Harry is the watchful eye of Dr. Leo, VK3AC, upon whom the world depends.

Up there in Townsville, VK4MF, has had quite an operation. No doubt many have wondered why that loud signal has been absent from 22 mx, but on information from VK4MF, another Townsville, John is making steady progress.

On behalf of all the sideband gang I wish you both a speedy recovery.

VOX RELAY

Have you had any difficulty in obtaining a suitable relay for voice control operation? Arch VK3WY has a good suggestion. The 120V 1.5A relay that is found in the MC969 I.F.F. unit and available from disposal sources. The coil has a resistance of 13,000 ohms while d.p.d.t. contacts are available. This relay would be suitable for a vox control circuit that appended in last month's notes and you will have a set of contacts for switching out the voice coil in your speaker or maybe controlling your antenna change-over relay.

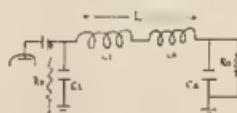


Fig. 4.—Pi Network.

VS1JV

Up there doing a tour of duty with the Australian Army Signals Unit is John VS1JV. Hailing from Wangaratta, Vic., John is always pleased to have a yarn to VK stations and he is a good fellow. He is not idle during his spare time going without contacts from much further afield. After John signs with you, listen for the dog-pile that develops!

His present a.s.b. tx is quite unusual as it employs transistors in the low level r.f. and audio stages. The 9 Mc. McCoy x1 filter helps in the generation of the s.s.b. and after the transmitter a 100W UHF power amplifier in 815 is a ZL linear circuit take care of the signal.

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ROBERT CASTRO, VK2MC

It is with deep regret that we record the death of Robert, VK2MC, on 1st August, 1960. Bob was well known among sideband operators throughout the world and his good interests, his shrewd observations and his friendliness and excellent signal. He will be sadly missed by his many friends far and wide.



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VHF

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50 MEGACYCLES

Now everyone has had their taste of JA DX for the new year, VK4 to VK5. Oct. 8 saw VK4 and VK5 catch up with good signs, each way. Other Divs. made the grade in August, VK4 of course earlier. KHS also made contact into VK5 while that Div. also listened to KGS working JA. Unfortunately the old boy was down there realizing that the band was open to VK. Frustration hardly describes the gang up there.

David 3QV reports: "VRDFF in Suva states that there is no current or proposed activity in VRD lands on 30 Mc. and that there has been no legal activity from there over the last couple of years. I am sure that the MacCormack Islands will be active again at the end of the year, particularly after Christmas. Ron built by Fred VK4YTS plus a 3 el. beam 30 feet high. He is prepared to run skeds and auto. c.w. if there is someone at this end to listen. A t.v. set is available to monitor Channel 2 and Marconi has no signal on Channel 3. A 50 Mc. set is available. He has run arranged skeds with W land. VKEED on 30 Mc. is in operation. (SDGZ).

From Paul J. Edwards, VK7TAJ, C/o. Physics Dept., University of Tasmania, Hobart, comes the request, which requires the active participation of all members in the various Divisions, particularly VK4 and 4. Participation in his research project should be the bread and meat of Amateur operators, an answer to those critics who say "what use are you to the country." His research project is to find out what our only use is to cause t.v.i." and an indication to the powers that be, those possible nibblers at our bands that the Amateur is worth his salt and place in the frequency allocation. What better than your old self.

"Although new to the 30 Mc. band myself, I am particularly interested in propagation modes at this frequency. My research work in the Cosmic Ray Group at the 'Shop' here is primarily concerned with solar controlled events.

"As far as 30 Mc. is concerned, it is probably result of geophysical activity, I am keen to obtain reception reports of Russian t.v. on 48.75 Mc. Preliminary results indicate a close relationship between T.E. TV reception and solar flares. These reception events are, however, relatively infrequent here and conclusions could be strengthened by reports from say VK4 or VK5 where they are more frequent.

If anyone could be of help in this respect, the programme would be given a considerable boost. Of primary interest are the details of the reception in various locations. The dimension, propagation, strength and fading characteristics of the signals are also of very great utility. Another interesting characteristic would be the zenith angle of maximum received signal strength. Any information which would aid in guiding or reflecting mechanism is involved. I would very much appreciate any help you fellow Ham can offer. All reports will, of course, be acknowledged. I feel that Amateurs and/or S.W.l. reports may be useful in elucidating some of the mechanisms involved in the strange things that happen on v.h.f. (TJA).

Now let me introduce you to David Tanner, VK5ZAT, that is if he needs any introducing. David is taking over the job of sub-editor for the v.h.f. page. An active and successful v.h.f. DX man, always available for local contacts. David should introduce himself and sign off on the v.h.f. page. You Divisional scribes, those who have passed on the job and those writing now, together with all those other unofficial scribes, have made my job easy. It has been a pleasure to work with you all and I offer you all the best now and in the future. Notes in the future may be sent either to VK5ZOF as in the past or to P.O. Box 26, East Melbourne, C.S., Vic.—VK3OF.

NORTH SOUTHEAST WALES

General.—The monthly meeting of the V.h.f. Group was very well attended to by Alex Elkin, who lectured on "Shifting the Frequency of Crystals". This was a "do-it-yourself lecture," full of practical details and know-how. Full instructions and equipment were given including the 10 x 10 x 1 inch thick

rubber pad which Alex assured us was necessary and was to be placed on the edge of the table to keep the crystals against when we fractured the crystal after hours of work. This was the first of two lectures designed to solve the problem of "dogpiles" on the 144 Mc. band. The second lecture by Alan Bird 3QW will cover "Improving the Selectivity of 'Rx's" and set down for the Oct. meeting. The Nov. meeting will be on "The Use of Microwaves" and is set down for Nov. 4.

Activities during the month of Sept. included a night hidden tx hunt and an all-day programme for hunt. Winner of the latter was 3PM with 1000 contacts and 3AWZ/2AN, 3OA and 3LAH with 1000 contacts. The night tx hunt was won by ZEAK with 30A/3ZAV second and 2ZNM third. Barry as fox picked a boggy location and proceeded to get bogged himself before the start. However, 30 minutes later he was out. Luckily no round was bogged after him. The hunt was a success and several headlands in Kuring Gal Chase where 2ZAG was hidden. Neville 3ZNM provided some amusement with his p.a. type waffler which could be heard coming up out of the bush for quite a distance.

To Mr. Goss: Very sorry a note from Trevor 2P7L, Lord Howe Island advises that Ron VK2ZEP will be operating from there shortly on the band. This is one to watch out for. Further information via VK2ZAG.

144 Mc.—Information is rising with 2ZAH, ZEAK and 2ZGM appearing on the band in recent weeks. Your 30 Mc. have worked 120 stations on this band, but alas does not have 123 cards to prove it. What about a claim to the most stations worked? (AND confirmed). QSLing is not strong among the v.h.f. fraternity but the prospects of a V.H.F. D.X.C.C. in VK should be good. As far as the 144 Mc. band is concerned quite an increase of mobile operation during the week-ends over the last month, even when no planned event takes place. It has even been rumoured over the air that EHO might go mobile. What about it, Roy.

576 Mc.—Information is as strong as a few months ago. However, EHO has been heard at 58 plus at numerous locations. The QSOSS/50 seems to have become standard equipment for this band and it is certainly a good tube for this frequency. However, it is rather an expensive ham and this is discouraging. Some day a good form of variable tuning at a low price will prove extremely popular with prospective 576 Mc. candidates. So far most operators on this band are using ASST or 8 rx's but supplies of these are exhausted. Eventually someone will come up with an economical crystal locked converter. Perhaps Winchey can be interested in this one—VK2ZAG.

VENTORIA

80 Mc.—Reports indicate all quiet on the DX front for the past month, but things should liven up shortly. Let us hope so anyway. JVL and his wife have been here for the last week since that hit Naurukata late in Sept. The 22 Mc. beam up 54 feet suffered minor damage due to bits of flying corrugated iron, but the 30 Mc. beam came through unscathed. Ron has described it as in favour of 20 for the time being but he is not sure he will be able to clean it down. Warning! Michael ZEKO has a tape recorder and is getting up to all sorts of devious tricks with it, so when working that gent watch your step.

144 Mc.—3ZCG is on the move again, this time to Koeweep. George appears to be performing admirably to his new 3ZCG station from Mt. Franklin (near Castlemaine) and Mt. Dandenong with mobile gear. Other reports are from Ron ZEZR/3, Maryborough, Richard ZZEZY/3, Mt. Dandenong; and 3ZAV/3 at the Geelong Amateur Radio Club, and 3ZAV/2 at the Melbourne Amateur Radio Club. Another club running an exhibition of Amateur Radio is the Victorian Railways Institute and the club station, 3RI, was on deck for demonstration purposes. New and seldom heard calls lately include 3LC, 3ALX, 3AXT/3 East Maitland, 3UH/3, 3AU/3, 3AV/3, 3ZAV/2 and 3ZAV/3 in the Sept. notes my mistake entirely, so please accept my apology Vic. Do not forget the activity night every Friday evening. At one stage Friday appeared to have the least activity of any week night since that hit Naurukata.

Mathewan.—Project—An model air probably aware, successful two-way contact has been made between WIBU and WASHB on 1215 Mc. bumping the world record to 2,700 miles although the actual distance covered by the signal was much longer than this since it was bounced off the moon. Full details are in the Sept. "QST".

Perhaps the next Moonbeam contact may involve Australia since the Group here has obtained a 4 x 100A, a 3CB3A and a 432 Mc. cavity. Construction is about to start on a 36

ft. dish of which a scale model has already been built. Quite a nice one, too. Judging from the photo, it appears to be a Melba dish. The group are working with the contractor, Fock ZZDG. The Group here have been greatly encouraged by the offer of assistance from the Rhododendron Swamp V.h.f. Society of Madrasfield, Mass. (WIBU), so it should not be long before this becomes a reality.

V.F. Group Meeting.—The Sept. meeting included films and discussion on field days. Nothing definite was decided for the latter and details are to be finalised at the next meeting. No further reports this time so T.D. until next month—VK5SQV

QUEENSLAND

50 Mc.—No listening here until Sept. 11 when I turned on my new 30 Mc. 4WD, 30A/3, ever. Bill 4WD, 12th Noel 4NB getting a 3Mx converter going, coming in fine on 40 though. Worked Mick 4ZAA at 2003. Mick reports hearing John 4PU and Len 4ZBM carriers, also worked Ron 4ZBZ. Have been looking north all this month for 4ZBZ, but no luck. Heard 4ZAA, 4ZBM and JA1CYC, 3 and 7, 9 at 0700 on 5P on F2, at 1815. 18th, worked JA1CQB, so gear here still works 4ZRS. 4ZAA only ones heard that evening. At 1835, JA2AVO was collared by me. Quilt a lot of new calls can also hear JA in 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, 1O, 1P, 1Q, 1R, 1S, 1T, 1U, 1V, 1W, 1X, 1Y, 1Z, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 2J, 2K, 2L, 2M, 2N, 2O, 2P, 2Q, 2R, 2S, 2T, 2U, 2V, 2W, 2X, 2Y, 2Z, 3A, 3B, 3C, 3D, 3E, 3F, 3G, 3H, 3I, 3J, 3K, 3L, 3M, 3N, 3O, 3P, 3Q, 3R, 3S, 3T, 3U, 3V, 3W, 3X, 3Y, 3Z, 4A, 4B, 4C, 4D, 4E, 4F, 4G, 4H, 4I, 4J, 4K, 4L, 4M, 4N, 4O, 4P, 4Q, 4R, 4S, 4T, 4U, 4V, 4W, 4X, 4Y, 4Z, 5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H, 5I, 5J, 5K, 5L, 5M, 5N, 5O, 5P, 5Q, 5R, 5S, 5T, 5U, 5V, 5W, 5X, 5Y, 5Z, 6A, 6B, 6C, 6D, 6E, 6F, 6G, 6H, 6I, 6J, 6K, 6L, 6M, 6N, 6O, 6P, 6Q, 6R, 6S, 6T, 6U, 6V, 6W, 6X, 6Y, 6Z, 7A, 7B, 7C, 7D, 7E, 7F, 7G, 7H, 7I, 7K, 7L, 7M, 7N, 7O, 7P, 7Q, 7R, 7S, 7T, 7U, 7V, 7W, 7X, 7Y, 7Z, 8A, 8B, 8C, 8D, 8E, 8F, 8G, 8H, 8I, 8J, 8K, 8L, 8M, 8N, 8O, 8P, 8Q, 8R, 8S, 8T, 8U, 8V, 8W, 8X, 8Y, 8Z, 9A, 9B, 9C, 9D, 9E, 9F, 9G, 9H, 9I, 9J, 9K, 9L, 9M, 9N, 9O, 9P, 9Q, 9R, 9S, 9T, 9U, 9V, 9W, 9X, 9Y, 9Z, 10A, 10B, 10C, 10D, 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17W, 17X, 17Y, 17Z, 18A, 18B, 18C, 18D, 18E, 18F, 18G, 18H, 18I, 18J, 18K, 18L, 18M, 18N, 18O, 18P, 18Q, 18R, 18S, 18T, 18U, 18V, 18W, 18X, 18Y, 18Z, 19A, 19B, 19C, 19D, 19E, 19F, 19G, 19H, 19I, 19J, 19K, 19L, 19M, 19N, 19O, 19P, 19Q, 19R, 19S, 19T, 19U, 19V, 19W, 19X, 19Y, 19Z, 20A, 20B, 20C, 20D, 20E, 20F, 20G, 20H, 20I, 20J, 20K, 20L, 20M, 20N, 20O, 20P, 20Q, 20R, 20S, 20T, 20U, 20V, 20W, 20X, 20Y, 20Z, 21A, 21B, 21C, 21D, 21E, 21F, 21G, 21H, 21I, 21J, 21K, 21L, 21M, 21N, 21O, 21P, 21Q, 21R, 21S, 21T, 21U, 21V, 21W, 21X, 21Y, 21Z, 22A, 22B, 22C, 22D, 22E, 22F, 22G, 22H, 22I, 22J, 22K, 22L, 22M, 22N, 22O, 22P, 22Q, 22R, 22S, 22T, 22U, 22V, 22W, 22X, 22Y, 22Z, 23A, 23B, 23C, 23D, 23E, 23F, 23G, 23H, 23I, 23J, 23K, 23L, 23M, 23N, 23O, 23P, 23Q, 23R, 23S, 23T, 23U, 23V, 23W, 23X, 23Y, 23Z, 24A, 24B, 24C, 24D, 24E, 24F, 24G, 24H, 24I, 24J, 24K, 24L, 24M, 24N, 24O, 24P, 24Q, 24R, 24S, 24T, 24U, 24V, 24W, 24X, 24Y, 24Z, 25A, 25B, 25C, 25D, 25E, 25F, 25G, 25H, 25I, 25J, 25K, 25L, 25M, 25N, 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PREDICTION CHART, NOV. '60

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SWL

Maurice Cox, WIA-L3055
Flat 1, 37 Boyd Crescent,
Olympic Village, Heidelberg,
N.S.W., Victoria.

Fellow a.w.l.'s, here is your notice once more, with the news and activities of the VK a.w.l. I hope the bands have been kind to you in the way of DX. If so, why not write me a letter so that all a.w.l.'s know what you have heard. While you are about it, tell me something about yourselves and your equipment.

Did you like last month's page and a half? I would say it is the first time in history that the a.w.l. page has gone over one page. It shows that I'm getting what I ask for and the news of and about you; so keep writing to me.

I haven't had any queries re the a.w.l. Convention next year. Who is going to be in it?

Have received one photo for inclusion in next month's issue. Why do the a.w.l.'s hope that there will be a lot of logs entered in the VK/ZL Contest. This item of news will be of interest to you all.

Awards—It was decided at the last VKS general meeting to establish two award certificates for the world-wide DXCC, V.K.A.V.K. (heard all VK). This award will be issued to the holders of 12 cards; they should comprise of VKI through to VKS; two from any VKB areas, and two from any VKD. Secondly, the VK S.w.l. DXCC, which will be of 100 cards from any 100 different countries. More details of these awards in next issue.

THE STATE NEWS

Albury Radio Club—Down in this corner, there is not a lot of listener activity, but it is improving. A suitable entry for the member, Milton Richardson, was an entrant in the R.D.T. Contest. His score of approx. 360 points is very good going for a newcomer to these events and he is to be congratulated on his effort. We must at this stage, make note of the assistance given to some of the members in this club by Don Rice in particular. Don has made his shack available in the club for their Friday night meeting and his mode of instruction. I must say, we will in time add to the number of Amateurs in our town. The ZLQ S.D.S. exists in a similar manner and it is fortunate that there are two such willing helpers who, despite a severe tax upon their patience, still continue to hold the fort. C.W. Instruction is in the very able hands of Art Zevy.

V.K.E.—Official reports from the VKS Group are very rare these days. Listening to the Sunday broadcast from JWL one could be excused for thinking that all the Group was doing, apart from attending to commercial radio, was assisting the Divides with bulletin folding and such tasks. Now I am not trying to belittle the work of those fellows who assist Norm in the various tasks around Atherton St. and Duran. How about something being done for the listeners? I understand the VKS Group has the biggest list of issued listeners' numbers—300 according to the Call Book—three times more than the VK3 Group, but do I get any reports or letters for this page? No. You chaps in VKS and VKD could help first to grow if I stopped writing this page. I and several others are trying to build up the a.w.l. group in VK land, so that one day you chaps who become Amateurs will take your position alongside other Amateurs. And when you do, you will be in a better position to help you to become good operators. So while you are listening, help others to help you. Just remember that W.I.A. Amateur organisation which, if the commercial people had their way, would be the only exhibition. Support for the group has always been hard to come by for the office-bearers. Contests have been organised and not supported.

It is understandable therefore that the Secretary and his helpers are not fully appointed at the risk of interests in their efforts. What about us chaps, support your Group more fully even if you don't agree entirely with them. Give the Secretary a bit more help instead of leaving it for the other fellow to do. I am in full agreement with the Secretary of the VKS Group and I set plenty of support from our President Mac, our Asst. Sec. Tom, and we function quite well. So help to it lads, you will find it all to your advantage.

V.E.L.—Frosty Fraser is to be congratulated as with his recently obtained H.R.O. and 66 ft. end-fed antenna, he won the Contest of the Month (number of countries heard on s.a.b.). He heard 34, which was a mighty fine effort. Yours truly, Bert 2ZGD, our President Mac, our President 47. There were quite a few logs entered, which was very pleasing to note. Bert 2ZGD is donating a trophy to Frosty at our next meeting.

After three weeks we had a dozen of us went to the Geelong Amateur Radio Club Exhibition. Quite a few of us came away with sore eyes, because of the very nice range of rx's we saw. It was a very good exhibition, which was enjoyed by all. At the last general meeting s.a.b.'s were presented with a discus and passed on the two awards. At the next meeting the organising committee will map out our next twelve months of activity. On 6th Oct. we paid a visit to the transmitting site of GTVS at Mt. Dandenong and we spent two hours there. We were given a tour and now know how we receive that one-eyed monster's signal. Our thanks go to JRF, one of the technicians who explained everything to us. Thanks Ian for arranging such a nice visit.

Tonight I am going to speak about a band which I think will look like an Indian's bow—it's to be constructed of bamboo. I have put up two WS Windham type antennae; actually one was up before, so one is north by south, one east and west. Here is a switch arrangement to go from one to another.

V.K.A.—Their last meeting was held at the Wesley Hall, Mt. Gambier, but owing to school holidays some of the a.w.l. were away from the district. There were six a.w.l.'s present and after the meeting they visited S.H.P. & Stanke. Whilst they were there, he made contact with WSAGG on c.w., but didn't have luck with phone calls.

Free Lights received a letter from a W.I.A. member who wanted to join the ranks of the a.w.l.'s. After the presentation, the member is using a 5-wave dual wave, but hopes to receive a Bendix shortly. Colin has now heard 31 countries, but still only two are confirmed. His rx operates on 10 m.w. and 500 w. power. He puts in a few words and quote: "While at 3M's shack this Sat. afternoon, Dale L3003, Trevor L3030 and myself had the pleasure to have words with Steve GJ3NT in England. He is 18 years old and had only been on 12 m.w. and 100 w. power since he came to Australia." He sure does Colin.

V.M.—The new Secretary of the V.E.L. Group has written to me and his name is Michael Janzen, from New Norfolk. Thanks for the letter Michael, it is pleasing to know that you are all still alive down there! It's good to see that the interest in contests is still there. I would like another pair of hands and another head, but then I would keep up with it all. I've been that busy this last two months that I have only sent out two a.w.l. reports. Anyhow, Michael makes mention of the following: "Received quite a few items of interest on the go for the boys over there at the moment."

Every second Sunday morning he is going to put in a few hours over the V.E.L. broadcast personally, so that the boys there have a little time in line with the Licensed fellows. They also have a few lectures and a visit to the P.M.G. Monitoring Station on the hook. It looks though the next few meetings will be very interesting. Michael goes on to say that the main trouble is lack of attendance. The boys half done turning up each meeting night. What's wrong with your a.w.l.'s? Thought you liked visits and lectures. What about turning out to these events? By the way, Mike is using an ART with KRC-1000, 1000 w. and a 100 w. amplifier and a half power 6 m. wave converter. The antenna is a half wave folded dipole on 46 m. made from t.v. ribbon. Thanks Michael for your first letter, hope there is more to come.

EVERGREEN NOTES

It is with much pleasure that we can announce that one of our regular contributors, Colin Hutchesson, L5031, was the outright winner of the N.Z.A.R.T. Memorial Contest this year. It is most pleasing to see one of the younger members having success of this nature. The results are most impressive for the reason that Eric Morelock was second and Don Granley third. Congratulations Colin, see you in the VK-ZL.

Eric Edward, K3HDF, of India, and his mother, Mrs. K3HDF, both passed their amateur exam, and are now on the air on most bands, including 6 m. Both will QSL OK and any reports can be sent via Don L3003 at Box 146, Albany.

DX activity these days has gradually moved to the s.a.b. segment of 20 m.w. and some of the prefixes heard there are really rare regardless of which mode you prefer. The s.a.b. Contest which is being conducted currently

by the VK3 Group has brought to light some very interesting calls, so we suggest you new-comers listen some time in that part of the spectrum. It is necessary to have a b.f.c. on your rx to receive them, however don't bend it to fit in one, for your efforts shall be well rewarded.

CORRESPONDENCE

Letters received from L3042 (BERT-16), L3083, L3036, L3038, L3077, L3076 and two lone ones from L3021, L7007. L3042 writes that he will be a director under the s.a.b. Constitution at Shepparton circumstances permitting. Well, how about that a.w.l.'s, our master of a.w.l. is going to come and meet us all. So come on, come all. He says the QSL manager's job is to help him, but he never reads it. He writes to me, "We carry a day and tells me he has seen very few countries' cards that he hasn't got and he would like to hear them sometime. He says NJR is now in W.I. land and has had a good trip so far. He has a copy of the school calendar for Victoria during the school holidays with his XYL and son. He called in on L3083 and had a chat. I wonder what that was about? I'll let it be DJR. Thanks for the letter Eric."

New South Wales QSL Club, QSL 100, sends their thanks for publicity given their Memorial event and although it didn't draw a lot of a.w.l.'s, it did catch a lot for the tv section. Heard the broadcast today, it was very good, particularly your notes.

"Re last article in 'A.R.' some sarcastic comments have been coming in this paper and comments on ground planes. Now we all know these things are not a good rx antenna, but they are too noisy. OK? Well this miniature effort is really good in the country, I have proved it. It's not too good where there is noise, but the use of it is to Mr. Ken, K3K, who has which was entirely free of any form of man-made interference. In fact I am going to use it for 10 hours, in due course."

Kevin Walsh, L3088: "I feel that I ought to tell you of my experience in Army camp as a cadet communications operator. Being of some rank I was in charge of the section and unfortunately had to stay at the disposal of the transceiver. I don't know if you have heard of a WSAS10, containing in all nine valves, four tx and five rx; it can be used on c.w. and phone. The rx tunes from 10 m.w. through two bands. Of course the tx depends on its serial for range. Being only 400 yards from control, I used a simple 8 ft. whip for rx'ing. However, when used in conjunction with the provided dipole serial the range is increased to 70 miles on c.w. In actual practice I worked in a selected spot on 2944 Mc. The other net used 8325 Mc. Besides the WSAS10's control used 825 sets to keep in communication with mobile stations (field ambulance, the Major and HQs).

A bit of news from L3043. Scores up to date, 1000 m.w. calls, 40 zones all time. For low bands 150 countries, 30 zones. 1000 w. from various countries, 50 zones all time. 1980, 107 confirmed, 34 zones. Mailed 1,187 reports so far in 1980. Has had 879 QSLs so far this year. He has made 233,171 log entries all time. And in the last 12 months he has made 100,000 log entries. Following QSL Aug. 1980, rarest six were FG-YX, ZLAF, Campbell is WA1ZEB, OXMDP, ZLMDP, ZCSAE. In passing, I heard WRAYN/EP the first day he went on the air, and the 2nd, I awoke to log him. But he had only 100 w. power since the day he QSO'd with me a week ago. Write-up on me in Russian, CXA Russian magazine."

DX HEARD

On 3.5 Mc. L3036 heard SPED: that's the only one I logged on c.w. And L3043 confirms the same. I am Mac. My丙 3043 confirmed the same.

14 Mc. L3036, evening to 2100, UAAHC, G3HWR, UASQH, DILML, GRNMK, L3048: MI/WARPD, VQSYHV (1310 GMT), VYGANI, L3049, ZPQD, VSSMK, DULAJ, UMRAKA, VKSPB/4, FERAL, EVOVO, Crete, ZKBS, BVCHPT, VU-1000, PELA, From L3036, L3043, L3048, UBALD, PEGV, VPEIC, CINAC, HC1FG. S.a.b.: FGCOV/KSCB, ZE5ZC, KCAAG, LX1MF, SMALL, PZLAX, UBFJ, LURE4, 4XHL, ILBAQ, OA4CV, SVIAX, HK3VV, and plenty of others. I didn't hear plenty on s.a.b. as expected, but I told, but won't name them here as time is on the wing.

31 Mc. L3036, evenings to 2100, Novice and we during the day, WA1BE, UAAIF, KLAJEN, UCRAW, OHRA, GW4WKS, UAOOF, J4MC, ZL1JL, ZL1JL, All the usual suspects on c.w. L3074, 11a, Ge. ZS8, plenty of Russians, a new country for him, FRTZ, VNIWV, HB-SVW, VSGQ, SMIDQ, TGUS, CXPLW, CR-840, etc. L3074 records quite a lot of JAs and ZLs coupled with a couple of ZMs.

QSL Leader—This is my enemy this month. WI will delete the QSL Leader as there are only minor changes. Hoping to hear from you all shortly. T.S. the best of DK, Maurice.

NOTES

FEDERAL

N.Z.A.R.T. CONVENTION

The 1961 Convention of the New Zealand Association of Radio Transmitters (Incorporated) will be held in Hamilton (N.Z.) from Saturday, 3rd June, to Monday, 5th June, 1961, and any VK Amateur travelling abroad in New Zealand during this period will be most welcome, advised J. G. Sanders, ZK1AUV, Secretary of Convention Committee.

Because there may be a shortage of accommodation in Hamilton during this week-end, Mr. Sanders advises any interested VEs to make an early booking. Details may be obtained from Mr. Sanders by writing to P.O. Box 838, Hamilton, N.Z.

E.V.A.

Some interesting comments in relation to t.v.i. by Amateur transmitting stations have been received from VK2XHS, Mr. E. M. Fanker, and may assist other Amateurs in tracking down interference.

Mr. Fanker says: "During my investigations into the problem of t.v.i., it has become obvious that little trouble comes from direct pick-up of the t.v. receiver and that a high degree of suppression of harmonics emitted from the transmitter is necessary before they happen to fall in one of the television channels, e.g. the 3rd harmonic of the 81 Mc. band on Channel 2. The degree of trouble is of course directly related to the strength of the two signals.

"One form of interference that I do not recall reading of occurs when the t.v. receiver incorporates a combined antenna and feed-back from the speaker voice coil to the first audio stage. Direct pick-up on the speaker leads occurs and is fed into the audio amplifier where it is rectified and reproduced by the speaker. This can easily be recognised by the fact that it is not affected by any setting of the receiver volume control."

"Another one that can be quite severe is caused by direct pick-up at the input to the video amplifier and would there be any long delay between the video and audio circuit, severe interference from transmission in the 8.5 Mc. band may be expected. Use of the normal type of shielded hook-up wire in the video input circuit is not possible as the additional capacitive screen degrades the performance of the t.v. receiver."

"T.V.I. is a problem which we shall all meet some time or another and is a challenge to the experience and ingenuity of the Amateur to find the causes and effect a cure. Information from Amateurs which might assist others will always be welcome for publication in this magazine."

A.R.C.B. REPORTS ON LTU

The Australian Broadcasting Control Board in its twelfth annual report to the year ended 30th June, 1960, made comment on some points arising from the Radio Administrative Conference of 1959. The International Telecommunications Union held in Geneva, 1959, which can have a direct bearing on the bands allocated to the Amateur Service. This is printed herewith for the interest of Amateurs.

"A Radio Administrative Conference of the International Telecommunications Union was held in Geneva, Switzerland, 17th November and 3rd December, 1959, and the Board was represented on the Australian Delegation by Mr. W. H. Matfield. One of the principal tasks dealt with by the Conference was the revision of the Radio Regulations and the International Frequency Allocations (Atlantic City, 1947), which include the Table of Frequency Allocations providing for the allocation on an international basis of bands of frequencies for the various radio services, including broadcasting, television, and other radio services, such as Space Research, Radiosounding, and Ionospheric and Tropospheric Sounder Systems. Some of the more difficult problems in the allocation of spectrum space, particularly in those portions of the spectrum having long-distance propagation characteristics.

"As a result of the Conference, the following changes which affect broadcasting and television in Australia are contemplated:

"Medium-frequency 522-535 Mc.—This band, which was previously allocated to the Mobile Service, is now shared by the Mobile and Broadcasting Services in Region 3, which includes Australia.

"High-frequency 1,086-1,156 Mc.—This band, which was previously shared between the Broadcasting and Amateur Services in both Regions 1 and 3, will now be allocated exclusively to broadcasting in both regions.

"Very-high-frequency.—The bands allocated to broadcasting in Region 3 in the Atlantic City Table were confirmed with the following variations:

(a) 87-100 Mc. is now allocated to the Broadcasting, Fixed and Mobile Services, instead of exclusively to Broadcasting as previously.

(b) 170-216 Mc. is now allocated to the Broadcasting, Fixed and Mobile Services, in lieu of 170-200 Mc. in the Atlantic City Table. In Australia portion of the band 202-208 Mc. is allocated to the Aeronautical Radionavigation Service.)

"The frequency bands of the ten v.h.f. television channels reserved for television purposes in Australia are all included in the new Geneva Frequency Allocation Table and associated footnotes. However, the allocation of the band 132-136 Mc. for research purposes in Space and Earth Space projects and a move towards eventual allocation of the band 133-136 Mc. to the Aeronautic Mobile (Route) service on a world-wide basis, may involve reconsideration of the use of Channels 4, 10, 11 and 12 Mc. for television. Within television, Channel 7, 131-136 Mc., the band 103.5 Mc. plus or minus 0.5 Mc. is allocated on a world-wide basis to Space and Earth Space services for research purposes, subject to no harmful interference being caused to other services.

"Ultra-high-frequency.—The band 800-830 Mc. has been allocated exclusively to the Broadcasting Service in Australia, except for the portion 855-870 Mc. which is shared by the Radionavigation Service on a secondary basis. The Radionavigation Service may use the portion 860-870 Mc. until such time as it is required by the other services to which it is allocated.

"Super-high-frequency.—The Conference allocated the spectrum beyond 10,000 Mc., the upper limit of the spectrum allocated at Atlantic City (1947) up to 10,000 Mc. In this new spectrum space, broadcasting is allocated the band 11,700-12,700 Mc., shared with the Fixed and Mobile services.

"High-frequency Broadcasting Plans.—Nine draft high-frequency broadcasting plans, for different seasons and three periods of the year, proposed were prepared by the International Frequency Registration Board (I.F.R.B.), for consideration by the Conference, with the object of substituting orderly planned use of the available channels for the randomistic conditions existing present in the frequency bands allocated to high-frequency broadcasting. These draft plans did

not find general acceptance and considerable time and effort were spent in examining various proposals, such as a further reduction in the technical standards upon which the plans were based and an increase in the width of the primary bands and the number of bands in order to more satisfactorily fit the requirements submitted by countries. Neither of these major proposals was adopted, nor were the various countries willing to accept a reduction in their standard requirements, with the result that the I.F.R.B. decided to adopt the I.F.R.E. draft plans and instead concentrated on other means of achieving the more orderly use of the high-frequency broadcasting bands. The method finally adopted, which is a scheme of 'current usage', instead of the concept of 'requirements' forming the basis of the draft plans. In the operation of this new scheme, the I.F.R.B. will receive quarterly from each country the detail of proposed usage for the next year. In turn, the I.F.R.B. will advise between administrations, it will produce schedules of operation by which harmful interference between transmissions will be reduced to a minimum. It is hoped that in the operation of this scheme, over a period of some years a clear pattern of actual usage will emerge allowing the production of acceptable plans on a realistic basis at some future time.

"Technical Standards.—In view of the increasing congestion throughout the spectrum and the consequent need to employ the most advanced techniques to reduce to a minimum the space occupied by emissions, and also any spurious emissions, the Conference adopted new standards for Frequency Tolerances and Spurious Emissions, and, wherever appropriate, these will be incorporated in the Board's Technical Standards."

"Extra Extra Force of Regulations.—The new Regulations, including the Table of Frequency Allocations, are intended to come into force on 1st May, 1961, with the exception of that section relating to the 'frequency management' of the high-frequency broadcasting bands, the first schedules of which became effective on 4th September, 1960. On 19th May, 1960, the Minister announced that the Government had decided that it would establish a special Committee to consider a review of existing regulations and all classes of approved users in Australia and to study the application of the Geneva Conference Table and its relevance to Australian conditions in the radio field."

FEDERAL QSL BUREAU

Would all concerned please note that at 18th September, 1960, the licensed VK calls were as follows: AB, BH, CK, DM, ED, GE, GC, GH, IB, ID, IT, JC, JH, KM, KJ, NB, OF, PM, RL, TM, W, Y. (This information from the V.P.M.O. Radio Bureau.)

Advice is still awaited re disposal of QSL cards for VK3CK, JC, JH, KJ, NB, RL. It would be appreciated if anyone keeping seeds with Antarctica could secure the required information and forward same to W.L.A. 1960-61 QSL Book.

G.W.P.W. advises that he finds the W.L.A. 1960-61 VK "Call Book" an excellent publication, and most useful, and wishes to thank VK3KWS for sending a copy him.

QSL cards from KORT have now been distributed, according to Bill VK3KEG (any further queries in this Antarctica station cards can be directed to Bill).

Note, please, that the Nigeria QSL Bureau address is now: C/o. Dr. M. Dransfield, Reg. Research Department, Lagos.

From 1st August, 1960, Korean national prefixes changed from HL to HM. (HL prefix for American Forces remain as before.) QSL Bureau address unchanged at Box 161, Seoul, Korea.

Eric Trebilcock (EXRS196), Act. QSL Mgr.



"Better put it back together: here comes the supervisor."

NEW SOUTH WALES

An extremely interesting lecture was delivered by Mr. Peter Edwards, of the Department of Civil Aviation, at the September general meeting in Science House. The subject was "V.H.F. Omni Range (VOR)" and Peter explained the system to an interested audience. The vote of thanks was moved by Max J.M. Dingley. A "Givings" page in the last notes has been highlighted by the Hunter Branch Dinner and Field Day, the South West Convention and the V.H.F. Spring Field Day. The Hunter Branch and V.H.F. activity is continuing in other areas of the magazine, so only the South West Convention will be reported by this contributor.

The Eighth South West Convention was held over the holiday week-end of October 1 and 2 at Wagga. Senior Vice-President, Max J.M.



Early birds at S.W. Convention (Saturday morning). Left to right: John ZEDM, Ron Fullarton, Bruce IFM, Bob ZET, Harry ZETM, Tim ZETM, Dave IDE, Max IFM

and Councillors, Harold ZAAH and Tim ZETM, represented the Divisional Council.

The Convention opened on the Saturday morning at the Postal Institute with registration and ragchews, followed in the afternoon by a visit to the Post Office for an inspection of the new equipment. The social programme commenced in the Guildes' Hall with the Convention Dinner which was chaired by Jim RAJO. Some sixty persons attended the dinner during which the Deputy Mayor of Wagga, Ald. G. C. Cullinan, addressed the Convention and toasts to "The Wireless Institute of Australia" was proposed by Ross IFPN and the address was delivered by Max IFMP. At the conclusion of the dinner, the party repaired to the Postal Institute to enjoy wine.

Amateur contests on Sunday morning at 10 o'clock with a 2 mx Hidden Tx Hunt, which was won by Keith ZIAA with Eddy 1VP second and John Weidson filling third place. Back to the Postal Institute by 11 o'clock, the amateur part of which was conducted by Harold ZAAH from the home of Stan ZAID.

After the broadcast came the disposals sale and then lunch. The early afternoon from 1.30 p.m. will be remembered by those who participated in the all-hand scramble as the event of the day. Ross IFN selected a good site near the reservoir, and although winner of the event with 19 contacts, experienced some interference from Harold ZAAH, who was within 100 feet of one of the concrete sides of the water tower! Neither operator was aware of this until after the event. Second and third places were filled by Bill ZAEV and Don ITRS, both with 14 contacts.

Each operator had his institute and cars were loaded for the 2 mx fox hunt which was won by Keith ZIAA with Ross 1PN second.

Final event of the Convention was the Blindfold Tx Hunt which was won by Mrs. Mills in the ladies section, with Dave IDE recording the time among the men.

After the blindfold tx hunt, prizes were presented by Max IFMP to the passengers already mentioned and to others as follows: Lady travelling greatest distance to Convention, Mrs. Keith ZIAA of GOGO, from Orange; Lady travelling greatest distance to Convention, Assoc. Peter Barter, from Orange; the fox, Lindsay ZEES.

A minor convention was held at the home of Lindsay ZEES on the Sunday evening. Ragchews were held and the usual general fun was not until well after midnight that the curtain fell on the Eight South West Convention.

MOBILE OPERATION

On Sunday, 25 October, some of the 7 Mc. gang, along together for the family picnic and dance mobile were. A meeting point was arranged at the Colo River where all members of the various families enjoyed themselves.

setting, swimming and rag-chewing (which includes brain-picking, hi).

With so much interest in this branch of the hobby, increasing efficiency of the rigs over the last several years is very evident.

Those present were VKEK, ECE, EKO, ESW, EWE, ECR, ETE, EEE, EEE, EEE, EAD, ZAAAT and EASV (all mobile); HLS and ZAPQ were also there, but not as yet radiating mobile.

SHUNTER BRANCH

Alan Fairhall, VKEK, at our September meeting gave a very interesting talk. His slides of his tour to the East included Bangkok, Singapore and Japan. Alan, with his infinite flow of rhetorical description, kept the interest from start to stop. Even Bill ZET, who had been the "way-behind-the-scenes" man, lost in his eyes and it would not be surprising to see him again travelling north, even if only to stay at a Japanese hotel.

Those noticed in the audience were VKEA, ECR, 2XZ, EAYL, ZANG, 2RZ, ZALA, ZDZF, 2RZ, ZAKY, ZEL, ZKZ, ZKZ, ZKZ, ZKZ, ZKZ, Masters, Sherrard, Bailey, Stobie, McWhan, Ford, Corliss, Anderson, McMeekin, Fifteen Adams, Collett, Bailey, Rose; Miss Fifteen and Masters L and T Rose.

Les IRJ was congratulated on passing into the ranks of the Beneficia, whilst our visitors from Gosford—Major and Mrs. C. W. Connelly, their daughter and their thirty years of conjugal bliss. A glance at the book-club confirmed a suspicion of mine that Zhu Lu Lu was only half there.

The social meet for the month at Billy Heil's place was well attended for the change and all enjoyed themselves except ZEAL who at the only thing he could not wear were the spots before his eyes. Earlier in the evening, Keith ZAKX had decided to form a gourmet club with himself, Major Connelly and his wife. The arrangement between the Chinese committee and Bill's stomach was a losing battle for the latter and the Club was disbanded forthwith. Congratulations to Ian Fife in passing the exam.—Z call not yet known.

Ceasars Capsers—Although the attendance was not up to par, it was nevertheless as every bit enjoyable—the food was good, the company was good, and the speakers were excellent. After Major 2RU said Grace, the boys bucked in and did themselves proud, especially the gent on the left who had no plates on the dining and all the sauce ran right about the place. The toast to the visitors was proposed by Branch President, Lionel ZCB, who was responded to by Dave EJ. Wal ZEA, in proposing the toast to the P.M.G. and the Postmaster General, mentioned the state of communications, around about 800 B.C. in a more serious vein. Wal suggested that Amateur Radio could become a means of combatting the problem of juvenile delinquency and that serious thought be given to encouraging the young to join the ranks of hammen.

Mention was made of the Radio Inspectors of his acquaintance, Bill Crawford, Tom Armstrong and now George Riley, and he said that nothing but praise had been heard about these gentlemen and their efforts to work in the public interest. Of Alan Fairhall, VKEK, the Honourable Member for Patterson, Wal said, "We all know the stirring work he did in connection with the battle of the frequencies, even if you don't read Hansard." Responding on behalf of the Branch, Bill also said he had an Amateur and fully appreciated the troubles of the Amateur. George issued a warning that although there was an increase of 143 in the ranks during the year, there is a disturbing decrease in the number of active members, a state of affairs that should not continue if we wish to retain spectrum space.

The toast of Amateur Radio and the Wireless Institute of Australia was in the capable hands of Divisional Councillor, Dave EKO, who in his speech, mentioned that it was quite a few local fellows absent this year. We all have to forfeit something to perform something worth while and no doubt quite a few present could think up a reasonable excuse to be absent from most of the little extra effort and sacrifice to be present and put back into our hobby a little from time to time as we gain so much. Divisional President, Bill Lewis, 2YB, responded and stated that he far from deplored the fact that the ECE Division often appeared to be comprising the bulk of the members, but it should be noted that we are active and alive. Thanks were expressed for the stirring work of the late John Moyle and Alan Fairhall in connection with the L.T.U. The guest speaker, Max Hull ZEE (Federal President), discussed the rostrum and a break-down of a schematic plan of the Administration of the Institute. Max gave an interesting and informative probe into Federal matters and as he spoke for 30 minutes I can



Sunday morning, S.W. Convention. Left to right: Max 2MP, Don EKJ and harmonica, John ZEE, Lindsay ZEES, Darcy ZADM.

only give a few pertinent points and perhaps if I appear to be rambling, blame the sausage rolls I had.

"The main man," said Max, "on your committee is the Federal Councillor, a point missed by quite a few and he should be of two parts, that is, a Divisional and a Divisionary. Quite a lot of time is wasted by individuals writing to F.E. on matters which should and must be presented by your Councillor. Amateur Radio does not do enough nor spend enough to foster the younger chaps. Boy Scouts for instance would be an excellent group, being interested in communication, to instil the spirit of the Amateurs."

Continuing, Max said, that he couldn't understand the attitude of the P.M.G. Department in refusing to recognise the amateur as an entity of the country in which we are in contact as the good book of the L.T.U. states that we must speak in plain language which does not necessarily mean English. When F.A.S.C. showed in an unknown manner what they thought of the Amateurs, it was decided to approach the late Sir John Moyle to us but he refused, he wasn't even in the best of health then and pressure of work was with him. However, with the help of Pierre ZEAD and others, John was prevailed upon to change his mind which he did when the seriousness of the situation was revealed.

A lot of criticism has been directed at F.E. in not releasing early report from John while at Geneva but they were sub judices and unable to do so. It is remarkable fact that no motion was made at a recent meeting of the jamming stations with their useless cluttering up of frequencies—apparently it was too hot to handle.

At long last we have a representative on the committee called Ad. 510, which when called for Radio Frequency Allocation Committee and to date has had one meeting. Our main concern is to see that the bands are used to the fullest extent and it is hoped that when a request is made like the one concerning a 100 m. band, it is replied to as quickly as possible, even though it may appear to be silly to you at the time. From time to time similar requests may be made at short notice, so back up in your own interests. Concern is also felt due to the increasing number of low level frequencies due to being neglected to a dangerous level so it behoves us to encourage the limited licensees to get his full ticket and so occupy more bands. Another frequency user knocking on the door is the television, so will the number of stations increase, so will the order for more frequencies increase. In conclusion, Max gave us a target to work for every Amateur makes an Amateur and so double the ranks.

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Next day the Sydney Field Days were en-
danced where for once it forgot to rain, but
the wind was cold so Jack Hamilton was
kept as busy as he had hoped—however, you
did a good job, thanks Jack. Unfortunately
no having visitor trouble I have to say
there were none available.
However ZZDF won both the 100m and 200m
being 2AHA and 2ANU in the first, with 2ANU
and 2RJ in the second. Bill EXT won a 7 meg
something or other 2ANU's spouse
ladies' race. I am sure that the reason
I won the Dora Creek to tell me, but when
the others I haven't a clue. However,
for those interested the information will be in
my next month's edition. There will be several
Brisbane entries not in the dinner line-up.
These included two members of the Goon Show
in the persons of Arthur ZZP from Inverell
and Bill ZZD from Sydney—they were joined
by Ivan 2AM, ZIL and 2AQK.

VICTORIA

This month the notes are being written by John SAXES, who has taken over from Peter SIZ as Divisional Sub-Editor. In future, please send zone notes, club notes, etc., direct to J. B. Battick, Bayview Rd., Frankston; telephone Frankston 33478, as John is also script writer for the weekly broadcast he would welcome the news and views from VK3 Division, both for the broadcast and "A.R."

Well, as I was rung up and asked to take on this job on the deadline day for copy this month will be only a token effort. However, in future we hope to keep up a regular "newsey" column. Please let me have your news and views either on the phone, or on the air, or by letter. No news, no notes—so keep

第十一章 中国古典文学名著与现代文化

This was attended by about 40 members and a visiting Queen OZTHIR from Copenhagen. Kel Cocking, K2SFQZ, gave us an excellent talk on cascade converters, high frequency crystal filters and receivers generally. He plans to publish the results of his findings re these aspects of communication soon, so we'll look forward with interest to reading them. We also heard a talk on short wave antennas, using various factors, such as all of which have been included in the project KEL, which has been associated with over the last few years. Many thanks for a very fine business lecture. Sorry for you blokes in the country who couldn't get along, and sympathetic to those in the city who could have come, but didn't.

ANNUAL STATE CONVENTION

The Victorian Division's Annual State Convention will be held on Saturday and Sunday, 5th and 6th November at Maldon. An extensive programme for both days has been arranged. (See advertisement elsewhere.) Maldon is 8 miles from Melbourne, 11 miles from Castlemaine. Even if you can't make it for the two days, try to get there for the Sunday activities. Be seeing you!

ANNUAL DINNER

All VK3 Amateurs, and interstate visitors, are reminded that the Annual Dinner will be held on 25th November at Scott's Hotel and an early reply to your invitation will greatly assist the organising committee.

This promises to be a gala occasion—be there!! Hope you remembered to send back the slip off your ticket. Did you?

COUNCIL BRIEFS

Miss Foster, our Admin. Secretary, has left, but a worthy replacement has been found.

The necessary formalities to reorganise our Division's finance have been taken by Council. The original mortgage on the building has

been discharged and replaced by a loan from

the Commonwealth Savings Bank.
That's about it for now, but I'll be chasing news, both for the broadcast and the notes—please keep me informed. I guarantee not to lose anything you send me nor omit it! I'll even keep copies of scripts to include in "A.R." How about that! It'll be nice to have some soon, some correspondence.

第1章 项目管理基础

These 9 kHz activities will be the main feature of these notes for the present, as your correspondent has yet to build t.v. generators for the lower bands. As was reported previously, zone skeds are held on 3 MHz every Thursday and Sunday evenings. The best effort to date was the 8 p.m. session on Sunday, 2nd Oct., when eight stations answered the recall, and one station, K6ZG, of Spokane, Washington, the General Z2CG, now at K6co-wes-rup North, was exchanging SSB' signals with Peter Z2DP and myself in Sale over a 90-mile path for several hours.

Other stations involved were HDY in Mafra, ZAAZ in Traralgon, ZBZB in Warragul, ZBZB in Morwell, ZBZB in East Bentleigh, ZBZB in Frankston. Several of these stations have poor locations in the easterly direction and reflected path signals are used, particularly by Jim ZJZM is at the top of the Dandenong Ranges and has a very good signal. In Mafra he fires his 98 watts for medium or 18 element yagi at Mt Echuca to the north east. Very steady signals off the mountains are received here normally running around St.

This is a point worth considering by those Melbourne stations who consider Mount Banda-
nong too big an obstacle in the Gippsland
direction—ever heard of obstacle gain?

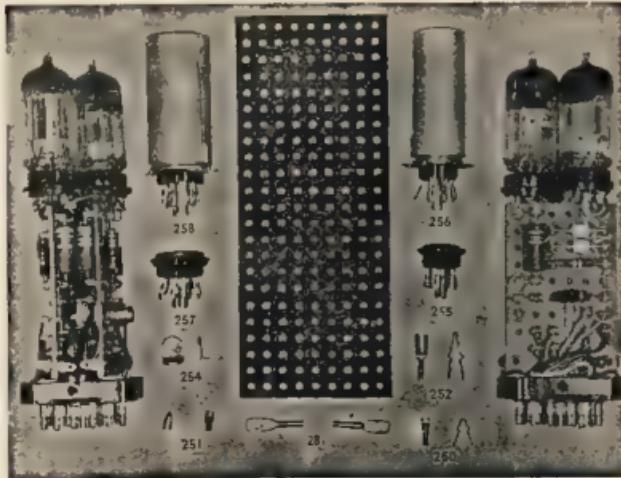
CLIFF 3AIT has been very quiet on 2 m^x of late—probably chasing more contest honours or new countries on the h.f. bands. He reports that the electricity supply is soon to be connected so farewell to whining genemotors, flat batteries and filament switching.

SDY has become very active on v.h.f. and can be heard regularly looking for Melbourne stations on 2 mhz. How about it you city folk, we want to keep him active on v.h.f. He will have 6 mhz gear very soon. I hear rumours that Morwell High School Radio Club is springing into action—hops to hear you fellows on the bands soon. The club activities are not limited

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to purely Amateur Radio and extend to quite a few fields associated with electronics. ZEDY reports hearing Melbourne stations working long distance on 80 m. but unfortunately not looking for country contacts.

SFO has been worked by ZECO who now appears to have an ideal location for working into both Melbourne and Gippsland. Heard SFO myself on 27th Sept. just above the very low noise level. The DX net is launching here most evenings around 5 p.m. With the advent of warmer weather it is hoped to have as many as twelve stations in the 2 m. net and scrambles will be held on the third Sunday of each month from 1445K to 2000K. The Eastern Zone awakens, so let us stay awake! -3ASW (ex-ZBZB).

WESTERN ZONE

Our Annual Zone Convention will be held in Rainbow this year. As yet we have not selected date or conference room, but arrangements are in hand until the circumstances are more likely to favor us with a fine week-end.

Trev JABT (Warracknabeal) is at present in the happy position of having the S.E.C. power being connected to his property. Guess Trev will have his existing automatic a.c. supply connected so as to be available should on those occasions the S.E.C. fail.

Keith SQG (Muriel) has completed his new rig and now only waiting on the erection of antenna so he will soon be in "business" again. Zone hook-ups continue to be well patronised, so thanks a lot chaps for your continued interest.

SOUTH WESTERN ZONE

This month we are deeply concerned to learn that Leigh SII has been taken very ill. The Zone wishes you a speedy recovery Leigh, and we are hoping that it won't be long before you are back in the saddle again. W.I.C.E.N. practices are progressing but attendances are small due to perhaps the lure of the DX bands. Several stations were active during the heavy rains and demonstrated the value of the emergency amateur air raid SII will be ready. Signals on 80 m. during the midday aked were quite good and there should be no trouble covering the whole Zone area on this band at any time. Jim JABT has made tests on the 10 m. band and found it to be useful and was read 55 and 69 here at Broadwater at night and daytime respectively. Receiving antenna was a 40 m. dipole. Noise level may be the problem on this band though. These tests brought to mind an old friend who was a radio enthusiast and a good one; that of Reg SAPE. Reg's are not, by the way, in one of those on the 1460 Mc. so he is no stranger to the lower frequencies.

An old friend blew into the Zone Net recently, one Bill 3AWZ. Bill had no trouble making his own way up here and is over now. Don't forget LEAN BEAD, Bill's son promises a new rig on the air soon. Happy holidays to you Chris SAXU. Wo!, no gear! Shame! 3HG and 3ADV both having water troubles, both underfoot and overhead. Neil has the s.a.b. going 1.6, now and raking in the DX. Bill 3AWZ has a new rig along with the electronic organ. Seems a big job that one. Do you need all those frequencies for tuning up the s.a.b. rig you're planning?

10 m. has been playing tricks down Colac way for C. W. 3AEG and 3AGV, who were unable to hear each other and they are only two miles apart. Always the unexpected happens and guess what? Harry SII on 80 m. with a TA10 tx. He has retreated with most

of his gear to the farm away from the city noises. However, Harry has found that farmers have their troubles too! His nice long verandahs provide a perfect place for wind blowing scenes. It that the old bull went berserk after a fruitless search for the new bull!

DX is showing up again on 80 m. now and then and one 1.6, QSO was made with Phil WEHUG with sig. reports 599 both ways. Vic JARX has now a v.f.o. and expects to be more active. Tony 3WII has been permitted to put the key on the air, the rig of his and has produced a very nice signal. Look out next R.D. Contest!

Organising the Jamboree-on-the-Air has kept John 3AGD busy. His 3AQI is still with him because most of them are not very hard down there lately. Yet there are many with v.h.f. gear in the Zone. Mostly it seems up on the shelf.

The Zone Convention date has now been set for 19th - 20th November at Geelong. The Geelong Club are anxious and should be a first class show as always.

Latest station to discard the carrier is that of Jack 3ALP. Jack came up with a watt or so which produced an s.b. signal, so what will happen when the final fuses are added to the exciter? Jim is a phasing type to drive a ZL linear. Tony 3AMC has been doing some things back to be about to discard his carrier for a d.s.b. set-up, but now it is rumoured that he is going even further and is about to eliminate both those frequency-wasting sidebands instead.

Just wondering what Casey was driving at last month. Must be me I guess, but was it bricks or bouquets OM? It should be pointed out that the emergency nets used by the fire brigades in this State are owned and operated by the brigades themselves and not by the C.F.A. Last there is always the doubt about Amateur activity, almost every country dwelling Amateur is a member of his local network and invariably provides his own equipment which is licensed by the brigade for fire work only. Even Amateur within 100 miles of the recent big Grampians fire was in the fight using the emergency frequencies. Amateur equipment was also on the spot in case their frequencies could help.

Bill 3AWZ and W.I.A. N. has a backbone of these operators who, between them, represent every emergency frequency used in the Zone's territory. Not being subject to the same limitations as fire brigade operators the W.I.C.E.N. is preparing to help do a bigger job over longer distances to provide any emergency communication needed whether by fire brigades, C.F.A. or anyone else.

In other fields, let us remember the whole business of radio for fire fighting was pioneered by Amateurs much of the equipment, commercial and domestic made or used by Amateurs, and that Amateurs are still experimenting with new ideas for fire work. We have an Amateur on the Rural Fire Brigades Communications Advisory Committee, an Associate who has been invited to the Civil Defence three of the first handful of frenemy to attend the Civil Defence are Amateurs and members of W.I.C.E.N. Thanks anyway, Casey, for the chance to publicise a little.

GEELONG AMATEUR RADIO CLUB

The S.W. Zone, VJKS Division W.I.A., Convention is to be held in Geelong on 18th and 19th November, 1960. Members of the Geelong Amateur Radio Club will be at the club rooms in Gheringhap Street to welcome visitors on Saturday evening. The Convention dinner will be "on the sills" on 35, 7 and 144 Mc. to contact mobiles as they converge on the city.

On Saturday evening, the Convention dinner will be followed by a general meeting of the zone.

On Sunday a meeting of W.I.C.E.N. operators is proposed with numerous presentations and events of interest to all. Those who wish to take an active part should come prepared for tx hunts on 1.8 and 144 Mc., all-band scrambles, etc.

Accommodation should be booked with J. E. Bell (VK3ABT), Carr's Head, Anakie, Vic. Please include 10/- deposit with bookings. Listen to VK3WI Sunday morning broadcast for more details.

QUEENSLAND

RELATIVE AND DISTRICT

Any of you who read the letter in the "Letters" page of the April issue of "T.R.T." & "V.P." from "The Editor of the Page" will be interested to know that you can't win if you try the same caper. You will probably remember

that, in 1957, we were able to get twenty transceivers which the Police found were surplus to their requirements; well, recently I had a phone call from the Police asking if I should supply them with the names and addresses of the members who drew the transceivers. When I asked the reason for this request, I was told that some "dunkompt" had installed a transceiver of this type in his tow truck and was causing trouble to the police frequency. I was later told by one of our members that the transceiver used was not one of the ones we obtained, but the Police wanted the names "for the records".

"go-getters" in his tow truck business and had reason to think he would be busy by returning to Police transmitters and going to the scene of accidents immediately. Well, if he had left it go at that he would have been "apple", but temptation got the better of him and he just had to say his piece and confess the grand theft. You can see why doing something like this because you will be caught for sure and you know what "penal clauses of the Wireless Telegraphy Act" means.

The Cotton Tree Social Sunday was a huge success and there was an official attendance of 600. The Field Day was decided to remain as it was, but the day was chosen to have more of the functions of funfairs in the near future. At the Cotton Tree, the ladies and harmonics had a wonderful time and they have suggested that there should be a country versus city XYL Rounders match at the next first-aid day. The O.W. had a round versus city tug-o-war and the country team won, but wouldn't agree to a re-match. Did you hear about the Australian Record that was beaten at the Cotton Tree Field Day? Someone beat Vince 4VJ with a 1000 ft. wire whip called to be "talked" into the location. He got into his car and went to a great deal of trouble to explain where the Cotton Tree was. He asked, "Where are you now?" and received the reply, "We are exactly four miles away". Sure enough, "Chippy" 4XR was standing exactly four inches away from Vince's whip with a really tiny 7 Mc. transceiver built around transistors and torch cells. So they, Vince 4VJ and "Chippy" 4XR are claiming the "shortest-distance-ever" record QSO.

Stanley Secretary is still away as I write this and is now in his boat from the far north. He is now as far as the Atherton Tableland and, from what he has told me per letter, he has had a wonderful time. Now, for the first time since going into "double harness", on 2nd May, I am going to go sailing a couple of weeks at Coolangatta with our harmonica. She has given me strict orders that I must take it easy while we are on holidays. Our little 6 m. Communicators have been doing sterling service lately. Firstly, they were used during the large bush fire on Bribble Island in the capable hands of Ross 4ZAT. Then

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ANNUAL STATE CONVENTION

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SATURDAY and SUNDAY,
5th and 6th NOVEMBER, '60

at

MALDON

PROGRAMME

Saturday (from 10A.M. hrs. est.):
Meeting place on arrival at Maldon, VK3FO's QTH at corner Spring and Victoria Sts. on the main road through the town, quarter mile past the Shell petrol station, for direction to accommodation. 6.30 p.m.: Convention Dinner in the Shire Hall.

Sunday (morning):
8.30 a.m.: Leave Maldon for visit to Golden Age Gold Mine (congregates in the Shire Gardens), 10.30 a.m.: SWF picnic, east 12 noon: 144 Mc. Fox Hunt, starting point, Shire Gardens.

1300-1400 hrs.: Lunch, Shire Gardens. Afternoon activities at Butts Reserve, approx. two miles out of town. 1430: 1.6 Mc. Fox Hunt 1353. All-Band Scramble 1500-1530. Afternoon Tea. Bring your own lunch and afternoon tea, hot water available.

VICTORIAN DIVISION W.I.A.

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accident free once again, as I heard him call CG on 7 Mc. in his usual breezy manner. Someone with a toffee apple in their mouth came back to him (no, not You, Comps, sit down) and I stuck around to see if Frank managed to decipher the call. Apparently his rx is all right, but the spot where he makes a deathly silence exists where Frank should have been. S.s.b. always reminds me of the B.O. slogan: "Even their best friends won't tell them."

Lance SLD heard calling CG on 7 Mc. also early this morning. Long time no hear this one, but as I had heard him tuning up a day or so before, I was not so unprepared and had re-inserted the fuse in the aerial. Tom BAQ was at the meeting from Leigh Creek, and more prominent than the posh or the typewriter, is more powerful than the sword he made witness that he was paying back the two pennies he had been scrounged from John SKK. Jim SJK not very active these days, but is making little progress in his work, and has an occasional lunch hours. Only 8 watts but performs like 80 watts, as the reports from contacts show.

Talking of Jim reminds me that highly favourable reports of strength, clarity and reliability of my signals on 7 Mc. continue to pour in from all parts of VK3. Normally this would be the cause of much rejoicing in my camp, but, and it is big but, as I am on 11 Mc. only, I am beginning to suspect that either all the reports are referring up to putty, or I have an unwelcome visitor riding along on my carrier. Whilst I hesitate to believe that anything could be wrong with my signal, it certainly looks as though the movement does Jim the only live block away from me and reports that my 7 Mc. signal is as strong as my 11 Mc., and my face is getting redder and redder. My suggestion to Gordon AXK, who is a member of the Advisory Committee for VK3, that possibly I had made a avoid shaking discovered and would probably be knighted, met with such withering scorn that I fear I have shaken his faith in me. Not that he or anybody else has had much over me. Not that he or anybody else has had much over me. This little paragraph should succeed in stopping all those misguided friends of mine who have been ringing me up with reports on my 7 Mc. signals both good and bad. They get around, and I am sure that all for your interest, but I am not interested in the Old Folks Home, or the Adelaide Gaol, nor even the Mental Hospital. Geeeeeerrrrrrch!

Not much news from the Mount Gambier area this month, probably it is all the sun shine that they have had down there, or it could be the lack of rain. It is not to be expected with the strength of the t.v. signals being received there, anyway whatever it is, a period of Amateur inactivity has set in for the moment. Claude SKH is still in the middle of that new building and seems to be doing well on his health. 1 Mc. Ron SVH has not been sighted this month, and from this, plus the fact that he has not been heard at all, seems to point out that he is as yet, not on the air. Be looking for you, Ron.

Stuart SME is a possible convert to s.s.b. and appears to be taking it seriously. He must be after the rare ones that indulge in that form of transmission. Comps' army is growing apace, and will be me, very soon. Tom TAL is battling against a very high noise level at his QTH with the high tension line right at his front door, which makes the problem somewhat difficult. Have a chat to Les SAX. He has had that trouble as long as I have. Tom. You can both wrap on each other's shoulders. Erg ASK is still working all that he wishes on c.w. mainly on 7 and 14 Mc. It seems to me that all he has to do is to press the key and the bands immediately come to life.

Les SGJ has been another who has been somewhat inactive, and rumour has it that he is not very satisfied with his rx. You and a couple of hundred others. Les. CG BCJ, apart from frequent short and long distance calls, has been on the quiet side. He tells me that he has heard enough from Arch SKX, nor David SAW this month, but he understands that they both are fighting fit. You can say that again Col. you should have been at the

preliminary football final in Adelaide. Lucinda Loquacity at its best.

It appears that the Elizabeth boys have been playing around with the idea of some slow Morse practice on the air, and Tubby SNO, in the course of conversation with Tom STL, openly admitted that he had never heard of Tom's session on Thursday nights. That makes me a failure and also Gordon, because when I am stuck for a paragraph in the local paper I always fall back on the Morse sessions available in VK3. In this connection, the answer comes from Gordon. Apparently with all the DX that they work from Elizabeth, they cannot see the wood for the trees!

The news from the Upper Murray almost reads like a story book, but that's not all. Is it a city? With the aforementioned rumour concerning Hughie SBC being confirmed, Fred SMA having been reported as far as Clare, Tom STL being absent when my daughter called in to pass on my 82s, er excuse me, my 82s, and the fact that he was not in the activity reported. Fred SMA called in to see Lance SKL at Clare, but found the bird down on his way to Alice Springs for a holiday. Only left that morning, too, you can be unlucky Fred.

Mr. Fischer SVO if always try and keep sweet with the arm of the law, you never know, he might come in handy the next time that my grandson and I are sampling the oranges from the house next door. Recently sighted paymen to Tom STL, and a professional call to the Police Station next door. I was hoping that the calls could have been in reverse, but no luck. Tom is still at large. Tom STL, who is a son of Tom STL has been attending a safety course in our city of culture (probably to teach him to keep his finger out of safe doors). He tells me that my report on his accident last month was most interesting and he also lost his aerial wire, which necessitated some tree climbing so an accident course or, as he says, a safety course seems to be just what the doctor would order. Oh, I say the sweetest things!

My secret agent, the one with the long handled cigarette holder, and the lined garden (which a life test, stopped suddenly causing a series of glances of passing femininity) informs me that those two exponents of coloured films, Cee SKH and Des DSD, recently visited Loxton in search of exotic fruit blossoms. They were surrounded at the town bus fortresses for the honour. Remarkably, they found just what they were looking for and left well satisfied. Desad indeed, was it necessary to carry me across the road after the football match? The traffic was not that bad. It was the noise that caused me to shout so loudly, "Hello, Grandpa," I am not deaf. Anyway Cecil, I call you Cecil, because I am disappointed in you, why did you allow my name to be bandied around without even a word of recognition? And when I am cut to the quick, I will immediately mount my umbrage and ride away. Little oranges will grow again, I think!

TASMANIA

Bob TOM is back with us after his holiday in VKA. He celebrated his return to the air by burning out the thermo-couple in his antenna meter, putting him off the air almost as soon as he got on. Reg TBL is in the Royal Hobart Hospital with a broken leg, as the result of a motor accident. He has been back to Stanley from a trip to Hobart. We wish you well quickly. Reg. Max TCA risked spending the last few days of his annual holidays in Hobart, and we would have liked to see him at one of the shows. However, in that time, Max? Dennis TDR also visited the big smoke during September and apparently he will be making a monthly visit to this end of the State for the foreseeable future. The same applies to Doug TWD, who has known some of us up? Russell SKX/P was putting out a nice signal from up Mount Wellington on Sunday, 2nd Oct.

In these days of t.v. prevention, it is odd to hear of c.t. and not t.v. troubles, but that is exactly what happened to Doug TWD. Doug does not interfere with his own t.v. or b.c. rx but a nearby neighbour has complained about interference through one of the latest sets. At the same time, an older model in the same room is not subject to the interference. Best of luck getting rid of the trouble, Doug.

Our Secretary, Ken TKA, has become a tv star, after his appearance on Channel 3 on the "Sunday Show". The publicity on behalf of the Institute was excellent. Ken. There may be some truth in the rumour that Ken is considering changing his name to Cecil B. de Millia as a result of his success.

Jim TJO has a new rig on the air, t.v. proofed, too. It is a table-top job, and is working out very well indeed. Les ICK should soon have his big rig again on the air. The space for accommodating it is about ready. Tom TAL has at last received municipal approval for the design of his workshop/cave shack. You can therefore expect to hear him on the air within the reasonable future.

At the Divisional meeting on 5th Oct., a clubroom fund raising committee was formed with myself as convenor. Council representative so now charged how about some LSD to boost the fund, begun with £30 from the general funds of the Institute. The committee has a number of ideas for raising money which we hope to implement in the next few months. A pleasing feature is the way associate members have come forward to help on this committee.

At the same meeting, Alan TMY demonstrated the circuitry of practical v.h.f. converters and produced a slide show on the subject. The lecture put the matter beautifully when we drew our attention to the way in which crystal oscillators are now applied to these frequencies. Whereas only a few years ago the application of crystal oscillators to even 7 megacycles was considered remarkable and the latest thing.

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NOTE: Readers are advised to note the change in Hamads charges commencing from December "A.R." See elsewhere in this issue.

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He told me that the set needed a new picture tube, so I told him about the trouble the old tube had caused to my eyes and of the headaches and eye strain brought on by the over-bright glare of the picture tube. He said the tube with the very best picture was, in his opinion, the one most easy on the eyes, and was just what I wanted. Naturally I agreed, so the man said, "Replace it with a Super Radiotron Picture Tube."

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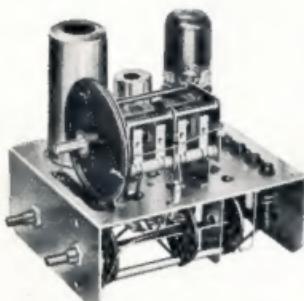


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